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# LUNACY AND MENTAL DEFICIENCY

## The Twenty-fourth Annual Report of the Board of Control for the Year 1937

### PART I



*Presented pursuant to Act of Parliament*

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*Ordered by The House of Commons to be Printed*  
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L O N D O N

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THE  
TWENTY-FOURTH ANNUAL REPORT  
OF  
THE BOARD OF CONTROL  
1938

(FOR THE YEAR 1937.)

**INTRODUCTORY.**

*Accommodation in County and Borough Mental Hospitals.*

As was anticipated in our last report, the overcrowding in public mental hospitals became more serious during the year. The completion of the new hospital at Runwell provided by East Ham and Southend, which was formally opened by the Minister of Health on the 14th June, 1937, in addition to various minor extensions at other hospitals, resulted in a net increase in accommodation of 1,575 beds. The total number of patients under care increased by 2,201 as compared with an average annual increase of 1,687 for the previous five years. The aggregate number of patients in excess of the authorised bed space rose to 3,608 on the 1st January, 1938, the highest figure ever recorded. Good progress has been made with the second section of Shenley Mental Hospital, and with the extensions at St. Ebba's. Apart from this, there are not likely to be any material additions within the next two or three years to the bed accommodation available, except for the provision of the nucleus (375 beds) of a new division of Bristol Mental Hospital now being erected at Barrow Gurney, and such extra beds as result from the completion of admission hospitals, convalescent villas, or nurses' homes. The number of beds provided in this way varies from year to year, but, on the most favourable estimate, the number of new beds is bound to fall short of the increase in the number of persons under care and, assuming the death rate remains at or near its present level, there can be no improvement in the position until the new mental hospitals in preparation at Lathom Park for Lancashire, and at Margaretting Hall for Essex, are ready to admit patients.



*Lunacy and Mental Treatment Acts.*

The direct admissions under the Lunacy and Mental Treatment Acts to public mental hospitals rose during the year to 26,892 as compared with an average of 23,597 for the previous quinquennium. Voluntary admissions accounted for 31·3 per cent. of the total, a total of 8,414 as compared with 6,904 in 1936. Temporary admissions increased slightly from 1,361 in 1936 to 1,404 in 1937, a disappointing figure but not surprising in view of the difficulties of the procedure. Admissions under certificate fell from 17,395 in 1936 to 17,074 in 1937. Having regard to the fact that voluntary admissions increased during the year by 1,510 the fall in admissions under certificate is less than might have been expected. The increase in the number of voluntary admissions is, by itself, encouraging as an indication that the value of early treatment is now more generally recognised, but it is singular that the certified admissions in 1937 amount to the same figure as in 1935. Figures for any one year are subject to accidental variations, but it would seem that the reduction in the number of certified admissions, which was so marked in 1934 and 1935, has, for some reason not yet explained, been checked, in spite of the rise in voluntary admissions. The death rate in 1937 rose slightly to 7 per cent. as compared with 6·81 in the previous year. So small an increase has no statistical significance, and the rate remains remarkably low when account is taken of the high proportion of senile patients and others in a physically enfeebled state.

*Out-Patient Centres.*

The number of out-patient centres established under the Mental Treatment Act remained practically stationary at 167 compared with 165 in 1936. An examination of the statistics of sessions and attendances indicates that, although the number of sessions is increasing, there is still ground for the criticism that many centres are mainly diagnostic in character. Without minimising the value of early diagnosis the Board think that more might be done in the way of continued treatment at these centres of those mental disorders which do not necessitate in-patient treatment. The value of the out-patient centre as a means of attracting voluntary patients can hardly be over-estimated, but this is far from being its sole function. There are many conditions which might be treated on psychotherapeutic lines if the necessary staff could be made available. Such treatment demands a great deal of time and, if the sessions are held only once or twice a month, it is practically out of the question. We are far from wishing to criticise those who undertake this very exacting task; but if centres continue to be staffed insufficiently or by doctors who have to give up (as many do) part of their leisure to out-patient work, there can be little hope of improvement in this direction. We have repeatedly emphasised the importance



of associating the mental hospital staffs with the centres, and we adhere to this view. But this does not mean that centres must necessarily be staffed entirely by whole-time doctors from the mental hospitals. We suggest that the difficulty might be met, at least in part, by attaching to the centres part-time physicians. Psychotherapists in outside practice have for some time been employed at the St. Albans Clinic and the system is one which might well be tried elsewhere.

Such an arrangement seems to us to offer several advantages. It would lighten the burden on the whole-time staff, not all of whom at present possess the experience or the special qualities which out-patient work demands. The creation of part-time posts would have the further advantage of giving suitable practitioners a chance to establish themselves in private practice in this branch of medicine. To start a private practice in psychiatry to-day outside of London is a hazardous adventure. It is not surprising that, except in London, there are lamentably few private practitioners in this branch of medicine, while the full time staff of public mental hospitals, even where they are allowed to undertake private practice, can for obvious reasons only do so to a limited extent. The holding of a part-time post in a centre would at least make it easier for those who contemplate private practice to make a start without too great or prolonged a drain on their resources.

The encouragement of private practice in psychiatry would make available to the general practitioner the help of the consultant which he must often need; but, apart from the obvious gain to the public, we believe that a larger infusion of private practitioners would have a stimulating effect on the specialty. It is not a good thing for any branch of medicine to be represented solely by men occupying whole-time salaried posts.

In a pensionable service there is a natural unwillingness to give up accrued pension rights, but we regret that the younger men show so little inclination to leave public mental hospitals for the hazards and prizes of private practice. The result of this is that consulting practice in mental disorders, with a few distinguished exceptions, is tending to pass into the hands of men with no experience of the major psychoses and, therefore, no real clinical background.

#### *Cardiazol Treatment of Schizophrenia.*

In our report last year we called attention to the treatment of schizophrenia by insulin shock, which was the subject of a special investigation in Vienna by Dr. Isabel Wilson, a medical Commissioner of the Board. During 1937 our attention was called to the development of an alternative method of treatment by injections of cardiazol. As this method of treatment was beginning to be adopted in English mental hospitals we thought it desirable that the technique should be studied particularly at Budapest, where it



was originally worked out by Dr. von Meduna. We accordingly sent Dr. Rees Thomas, a medical Senior Commissioner, and Dr. Wilson to study cardiazol treatment at Budapest, Vienna and Frankfurt, and a report by them is now in course of preparation. Both these new methods of treatment are of such recent introduction that it is impossible at present to form any certain conclusion as to the permanence of the results obtained, but the exponents of both treatments claim such strikingly successful results that we are convinced that both merit a careful trial, either separately or in combination. Without making any extravagant claim for either form of treatment, we feel that it is most encouraging that at last a determined effort has been made to devise some active treatment for a form of mental disorder which has hitherto, in spite of a certain percentage of spontaneous remissions, proved in general so intractable, and which has done so much to add to the permanent population of our mental hospitals. Even if it be true, as some contend, that some of the recoveries claimed for the new methods might have been effected by older forms of treatment, the speeding up of recovery which these new treatments secure is, in itself, a substantial advantage.

*Appointments to Post of Superintendent.*

*Mental Hospitals.*—During the last two years there has been an unusually large number of changes among Superintendents, and we have noted with some apprehension a tendency to fix the upper age limit for these appointments unduly low. In one case the upper age limit was 40, a figure which must restrict the field of selection, and may result in the appointment to top posts of men who have had only limited experience as Deputies. We do not undervalue the energy and enterprise of youth, but we feel that appointments involving the care of large numbers of sick persons, to say nothing of the control of mixed staffs often running into hundreds, call for experience and a knowledge of the world which few can acquire without a reasonably long training as a second in command. If it is true that most people learn mainly by making mistakes, it is at least equally true that the mistakes made by a Deputy can usually be corrected, while the mistakes of a Superintendent seldom can be, without at any rate a disastrous loss of prestige. Moreover, these premature promotions mean that the top post may remain in the same hands for a longer period than is, in general, desirable. We recognise that there must always be exceptional cases, but it is doubtfully wise to fix an age limit which must rule out experience and will leave many capable men to spend the last twenty years of their service with no hope of promotion. While we have previously made it clear that we do not favour the promotion of Deputies who are nearing the end of their service, we are opposed to a system which determines success or failure before a man has reached the middle of his medical career. If the



young candidate happens to be the best, by all means let him be appointed, but we strongly deprecate the view that the young candidate must be the best merely because he is young. Though we have been discussing appointment as Superintendent we believe that the same principle should apply to intermediate appointments also.

*Colonies.*—We cannot but regret the reluctance of some local authorities to appoint a medical superintendent at an early stage in the development of a mental deficiency colony. Apart from the need of expert advice in the organisation and planning of extensions, there are many ways in which a growing colony needs a medical head. Though there may be occasional exceptions, a non-medical administrator, even with nursing experience, cannot be expected to organise the daily treatment of the patients and to direct the staff in a colony of three to four hundred patients of both sexes, and experience has shown that the general efficiency may suffer in many ways from delay in appointing a medical superintendent. In particular, the training of the staff, the classification and the occupational treatment of the patients as well as the organisation of games and recreations upon which the health and progress of the patients depend to so large an extent are bound to suffer without competent medical supervision. It is equally certain that the medical work will be less efficient, since no visiting medical officer, however conscientious, can have the same knowledge of the mental and physical condition of the patients as a resident medical superintendent who has them under constant observation. The developmental stage in a new colony is a critical period. Success or failure in the future depends largely upon creating a sound organisation and a good tradition. To postpone the appointment of a medical superintendent until the necessity for one can no longer be ignored may appear to be an economy, but it is the kind of economy which, in the long run, is apt to prove very expensive.

#### *A.R.P.*

Numerous enquiries are received as to what air raid precautions can or ought to be adopted in mental hospitals and mental deficiency institutions. To these enquiries no general answer can be given because the nature of the measures to be adopted must depend upon local conditions. While it can hardly be supposed that even the most vindictive enemy would deliberately bomb a mental hospital, it must be recognised that many hospitals form such a large and imposing group of buildings that, even if they are not in or near a danger zone, there is always the possibility that their mere size may cause them to be mistaken for buildings of military importance. In at least one hospital, at Barming, a protective scheme has been devised and air raid drill has been practised with success. It is interesting to observe that the better types of patient have shown an intelligent interest in these drills, and a willingness to learn how to use gas



masks which few would have expected. Indeed, certain of their number have performed the duties of wardens very satisfactorily and, under the leadership of a member of the staff, can reasonably be counted as effective participants in the general scheme. We note with special interest a comment in a report by Dr. Hancock and Dr. Forsythe, published in "The Lancet" for the 5th March, 1938, that "contrary to popular belief panic is perhaps less probable among the mentally sick than among members of the general civilian population." Barming has set an example which might, with advantage, be followed by other hospitals in areas likely to be exposed to air raids.

### *Staff Dietary.*

In a recent report we suggested that the cafeteria system, which has proved so successful in the United States, might be tried with advantage in English mental hospitals. We are not aware that the experiment has yet been tried in England, but it has been pointed out to us that the system might be as acceptable to nurses as we believe it would be to the better behaved patients. While we gladly recognise that in many hospitals, especially where there is a nurses' home, much has been done by the use of small tables and in other ways to make the meals more attractive, there are still some where the nurses' dining-room remains grimly institutional. A nurse's duties are arduous and exacting, and it is most important that their food should be not only good and sufficient in quantity, as it generally is, but varied, well served and appetising. Many hospitals are well supplied with flowers and, while the patients have a first claim on the produce of the gardens and the greenhouses, there is no necessity to let them monopolise the flowers. Half-cold food and aspidistras are a poor preparation for a long afternoon in the wards, and bright table linen and fresh flowers cost little and make meals attractive instead of merely a dreary interval in a long day. Without wishing to anticipate the recommendations of Lord Athlone's Committee, we cannot help feeling that a little more care in the preparation and serving of nurses' meals and a greater variety of dishes would help to make the mental nursing service more attractive.

### *Holiday Camps.*

In previous reports we have enlarged upon the value of holiday homes. We mention with pleasure a novel experiment which has been tried with success by the Nottingham Mental Hospital at Mapperley. Nottingham also possesses an institution just beyond the boundary of the county with an ample estate, and last summer a holiday camp was formed here to which patients were sent (men and women in alternate parties) to spend a few days under canvas. We are informed that this camp was a great success and was much appreciated by those who were fortunate enough to be sent there.



Though the pleasures of camp life are, perhaps, more apparent to the young than to those of maturer years, there are many patients in mental hospitals young enough to enjoy the delights and to ignore the discomforts of life under canvas, and we commend the suggestion to those authorities which have large enough estates at their disposal. Not the least of its merits is that this way of breaking the monotony of institutional life is quite inexpensive.

### *Occupation of "Inaccessible" Patients.*

One of the problems of every mental hospital is how to interest the "shut in" type of patient, and, indeed, this is one of the primary objects of occupation therapy. New methods are being constantly explored and we believe that substantial progress is being made. Among the lighter diversions we note with interest a novel and ingenious device reported by the Ministry of Pensions Inspector as having been successfully tried at Wadsley :—

"A toy electric railway has been erected and has been very useful in obtaining the interest and assistance in working of the more confused schizophrenics."

Hitherto, running model trains has been regarded as one of the rewards of fatherhood, and their use in mental hospitals is new, so far as we are aware, though we have seen one successfully employed in a Dutch mental deficiency colony. Anyhow, the experiment is one which deserves to be recorded and, we hope, imitated in other hospitals. We wish that some equally ingenious distraction could be devised for the female side, for the fascination of model trains is apparently an exclusively male reaction.

### *Visiting Chiropodists.*

Though we receive many letters from patients few, unhappily, are such as to justify mention in our Report. But a patient at Claybury recently made the valuable suggestion that visiting chiropodists might, with advantage, be employed in mental hospitals. Those who suffer from corns, and few in middle and later life escape this irritation, know what relief the attention of a chiropodist can afford. Mental patients react very quickly to any physical irritation, and it may well be that painful feet provoke outbursts which are sometimes attributed to more serious mental causes when they are, in fact, purely the result of a bad corn or an ingrowing toe-nail. At any rate, the suggestion that patients' feet should be examined, as they were in the Army, by a chiropodist strikes us as eminently sensible and well worth a trial.

### *Mental Deficiency.*

During the year the net addition to the beds in certified institutions provided by local authorities amounted to 1,403 as compared



with 779 in the previous year. The most important additions were Marston Green Homes, Birmingham (493 beds), Great Barr Park Colony (300 beds for Staffordshire cases), Leybourne Grange, Kent (142 beds), Brandesburton Hall (139 beds) provided by the East Riding and York Joint Board, and Stretton Hall (100 beds) provided by the Leicestershire and Rutland Joint Board. Satisfactory progress was made with other new colonies or extensions already in hand, but the demand for materials and building labour for rearmament work has resulted in delay in some areas. Having regard to this difficulty, the progress made in 1937 was distinctly encouraging, though the total accommodation provided is still far short of what is required if the cases needing institutional care are to be adequately cared for. Mental deficiency is not, and is not likely to be, a popular health service, but there are many indications of a growing recognition of the fact that it is neither economical nor humane to leave the socially unadaptable defective either to drift into delinquency or to sink into chronic unemployability. Timely training and care may prevent permanent dependence and, costly as colonies are to provide, they are, in the long run, cheaper than a policy of inactivity. Mental defect is a formidable charge on the community, but the charge is not avoided by attempting to ignore it and by leaving at large these unfortunate people who, at best, are incapable of fending for themselves and, at worst, are dangerous.

#### *The Use of Licence for Higher Grade Patients.*

It is unfortunate that a case which came before the Courts in 1937 has led to a tendency to restrict the use of licence as a means of testing the fitness of mental defectives to return to community life. As we pointed out in our Circular No. 835, issued in May of last year, the success of the system depends mainly on a careful choice of patients and of the homes to which they are to be sent. In general, to send high grade patients on licence to their own parents is unwise. Parents are often the last persons to realise the needs of defective children. They have probably already failed at an earlier period to manage the patient, and if, as not infrequently happens, they are themselves mentally subnormal, they will be incapable of understanding the need for supervision and how best to provide it. But, given a wise choice of patients and of homes, there can be no better way of testing the patient's fitness for discharge. Discharge direct from a certified institution, without trial on licence, is almost always a risky experiment, only to be adopted in exceptional cases. It follows that any restriction on the use of licence must inevitably lessen the number of discharges, and so may convert an order under the Act into what it is so often, but wrongly, said to be, a life sentence. If licence is to succeed, practical help and regular and sympathetic visitation are essential. To visit only at long intervals is to court failure.



There are wide differences of opinion and practice as to the length of time which should elapse before discharge is recommended in these cases. There are those who argue that, in dealing with a permanent condition, it is unsafe to infer that good behaviour can ever guarantee that the defective can be left to look after himself. This is a view which we cannot share. There are, no doubt, cases in which the indefinite continuance of licence is not only justifiable but necessary. Young women, for example, who have no home of their own, will find it easier to obtain employment and will be far safer if they have an institution to which they can return in time of sickness or unemployment. There are other cases, less numerous perhaps than is sometimes suggested, in which the possibility of recall in the event of trouble supplies just the element of restraint which saves the patient from himself. We recognise the force of this argument, but we are convinced that, in general, public opinion will not acquiesce in the indefinite continuance of legal control over patients who, for two or three years, have succeeded in maintaining themselves without indulging in anti-social acts. Where the defective has become so far stabilised as to indicate ability to adapt himself to life in the community, he ought not to be kept under legal control because, at some antecedent period, he was "subject to be dealt with" on account of anti-social conduct. We hold, therefore, that every case which has remained on licence continuously for two or three years should be considered with a view to discharge or transfer to an alternative form of care. This does not mean automatic discharge at the end of a fixed period. There may be, as we have indicated, perfectly good reasons for continuing the order. But there is no necessity, and indeed no justification, for letting the case run on until the next quinquennial order is due to be made.

#### *Retirement of Mr. John Kirkland.*

There were no changes among the Commissioners during the year, but by the retirement in November of Mr. John Kirkland, O.B.E., F.R.I.B.A., we lost the services of an accomplished architect and a personality well known in the mental hospital world. Mr. Kirkland had had considerable experience of mental hospital designing before he became the Board's Architect in 1909 and, during his twenty-eight years' service with us, he acquired an unequalled experience of the special problems involved in this highly specialised branch of architecture. With the development of the villa system and, in particular, the detached admission and treatment centre, it is not too much to say that the planning of mental hospitals has been revolutionised since Mr. Kirkland first came to the Board, and in all these developments he has played no small part. The growing practice of entrusting the design of mental hospitals to municipal architects, who necessarily have had no

experience of the special problems involved, has thrown a great and increasing burden upon the Board's Architect. Mr. Kirkland's work became increasingly constructive and not merely critical; and there are few new buildings designed during his long term of office to which he has not contributed valuable suggestions. By Mr. Kirkland's retirement we have lost an architect of unique authority and a courteous and considerate colleague. We hope that he may live many years to enjoy his well-earned leisure. To succeed Mr. Kirkland, the Board appointed Mr. Frank Coutts Webster, O.B.E., F.R.I.B.A., F.S.I., who for twenty-three years has been Deputy Architect.



## I.—MENTAL DISORDERS.

(Lunacy and Mental Treatment Acts, 1890 to 1930.)

### NUMBERS UNDER CARE.

At the end of 1937, the total number of persons suffering from mental disorder notified as under care in England and Wales was 157,353, an increase of 1,831 during the year; the average annual increase for the five years ending 31st December, 1937, being 1,716. The percentage distribution of the sexes—males 44·2, females 55·8—is the same as last year and as the average for the preceding decade.

The increased number of notified patients has no necessary connexion with the incidence of mental disorders in the general population, being merely the increase shown by the excess of the admissions over the combined deaths and discharges. We emphasize this fact on account of the erroneous deductions that are sometimes drawn from such increases.

### CLASS, STATUS AND DISTRIBUTION.

#### *Class (Private, Rate-aided, Criminal).*

*Private* patients at the end of 1937 numbered 15,117 (males 8,114, females 7,003). There was an increase of 180 in the voluntary cases, with decreases of 2 and 186 in the temporary and certified cases respectively, yielding a net decrease of 8 in this class. Included here are 4,574 Service and ex-Service patients—99 fewer than a year ago.

Patients in the Naval and Military Hospitals (Yarmouth 213, Netley 42) are also included among the private patients, as are the 26 persons found of unsound mind by inquisition who were resident in institutions. There were in addition 63 persons (males 30, females 33) so found by inquisition who, not being resident in institutions, are not notified to us and so do not fall within the scope of our statistics. The total number of these inquisition cases continues to show a steady decrease year by year, due to the less frequent use of this procedure.

The sex distribution per cent. of the private patients was, males 53·7, females 46·3; but if the Service and ex-Service patients are excluded, as is advisable if it is desired to draw conclusions from such figures, the percentages become—males, 33·6, females 66·4.

SUMMARY OF PERSONS SUFFERING FROM MENTAL DISORDER, 1ST JANUARY, 1938.  
A.—ARRANGED ACCORDING TO CLASS.

WHERE MAINTAINED on 1st January, 1938.	PRIVATE.			RATE-AIDED.			CRIMINAL.			TOTAL.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
In Institutions provided by Local Authorities :—												
County and Borough Mental Hospitals	5,775	3,352	9,127	52,803	69,936	122,739	63	23	86	58,641	73,311	131,952
Other Premises ... ..	14	28	42	66	113	179	—	—	—	80	141	221
In Registered Hospitals ... ..	974	1,528	2,502	—	—	—	1	—	1	975	1,528	2,503
In Licensed Houses :—												
Metropolitan ... ..	351	714	1,065	1	1	2	—	—	—	352	715	1,067
Provincial ... ..	656	1,088	1,744	—	—	—	—	—	—	656	1,088	1,744
In Hospitals and Nursing Homes approved under the Mental Treatment Act :—												
Hospitals ... ..	—	—	—	—	—	—	—	—	—	—	—	—
Nursing Homes ... ..	15	73	88	—	—	—	—	—	—	15	73	88
In Naval and Military Hospitals ... ..	255	—	255	—	—	—	—	—	—	255	—	255
In Criminal Lunatic Asylum (Broadmoor)	—	—	—	3	—	3	590	176	766	593	176	769
In Public Assistance Institutions and Public Health General Hospitals ... ..	—	—	—	6,553	8,319	14,872	—	—	—	6,553	8,319	14,872
In Private Single-Care ... ..	74	220	294	—	—	—	—	—	—	74	220	294
In Outdoor Relief ... ..	—	—	—	1,425	2,163	3,588	—	—	—	1,425	2,163	3,588
TOTAL ... ..	8,114	7,003	15,117	60,851	80,532	141,383	654	199	853	69,619	87,734	157,353
Increase during 1937 ... { Private ... Rate-aided ... Criminal ...	Males.	Females.	Total.	Average Annual Increase in the five years 1933–1938 { Private ... Rate-aided ... Criminal ...					Males.	Females.	Total.	
	81*	73	8*						91*	76	15*	
	885	935	1,820						869	870	1,739	
	18	1	19						2*	6*	8*	
Total ... ..	822	1,009	1,831	Total ... ..					776	940	1,716	



SUMMARY OF PERSONS SUFFERING FROM MENTAL DISORDER, 1ST JANUARY, 1938.  
B.—CLASSIFIED ACCORDING TO STATUS.

WHERE MAINTAINED on 1st January, 1938.	VOLUNTARY.		TEMPORARY.		CERTIFIED.		TOTAL.	
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
In Institutions provided by Local Authorities :—								
County and Borough Mental Hospitals	3,486	3,696	7,182	128	359	487	55,027	69,256
Other premises ... ..	80	141	221	—	—	—	—	—
In Registered Hospitals ... ..	258	403	661	9	27	36	708	1,098
In Licensed Houses :—								
Metropolitan ... ..	90	163	253	1	14	15	261	538
Provincial ... ..	117	238	355	3	8	11	536	842
In Hospitals and Nursing Homes approved under the Mental Treatment Act :—								
Hospitals ... ..	—	—	—	—	—	—	—	—
Nursing Homes ... ..	13	70	83	2	3	5	—	—
In Naval and Military Hospitals ... ..	1	—	1	—	—	—	254	—
In Criminal Lunatic Asylum (Broadmoor)	—	—	—	—	—	—	593	176
In Public Assistance Institutions and Public Health General Hospitals	—	—	—	—	—	—	6,553	8,319
In Private Single-Care ... ..	5	7	12	—	1	1	69	212
In Outdoor Relief ... ..	These persons are not classifiable under the above headings, but for convenience are included among the Certified.						1,425	2,163
TOTAL ... ..	4,050	4,718	8,768	143	412	555	65,426	82,604
OF TOTAL { Private ... ..	781	1,333	2,114	31	99	130	7,302	5,571
{ Rate-aided ... ..	3,269	3,385	6,654	112	313	425	57,470	76,834
{ Criminal ... ..	—	—	—	—	—	—	654	199
TOTAL ... ..							69,619	87,734
OF TOTAL { Private ... ..							8,114	7,003
{ Rate-aided ... ..							60,851	80,532
{ Criminal ... ..							654	199
TOTAL ... ..							157,353	157,353
OF TOTAL { Private ... ..							15,117	15,117
{ Rate-aided ... ..							141,383	141,383
{ Criminal ... ..							853	853

*Rate-aided* patients on the same date numbered 141,383 (males 60,851, females 80,532) or 89·9 per cent. of all the notified patients. They increased by 1,820 during 1937 as compared with an average annual increase of 1,739, during the last five years.

The sex distribution per cent. of the rate-aided patients was—males 43·0, females 57·0; or, if the Service and ex-Service patients are included, males 44·8, females 55·2.

*Criminal* patients numbered 853 (males 654, females 199), an increase of 19 during the year.

*Transfers from Class to Class.*—During 1937, 622 rate-aided patients (males 258, females 364) were transferred to the private class; 255 private patients (70 males and 185 females) were transferred to the rate-aided class; and 75 criminal patients were retained and classed as rate-aided patients on the expiry of their sentences or on their discharge from the criminal class by warrant of Secretary of State.

*Status (Voluntary, Temporary, Certified).*

On the 31st December, 1937, at the end of the seventh year of the operation of the Mental Treatment Act, 1930, the following patients of each status were under care :—

Status.	Males.	Females.	Total.
Voluntary ... ..	4,050	4,718	8,768
Temporary ... ..	143	412	555
Certified ... ..	65,426	82,604	148,030

*Regradings to another Status.*—During the year, 1,470 changes in status within the institutions took place as follows :—

From—	To Voluntary.	To Temporary.	To Certified.
Voluntary ... ..	—	51	325
Temporary ... ..	444	—	244
Certified ... ..	387	19	—

*Distribution.*

The distribution of all patients at the end of 1937 can be seen by reference to the two Summaries (A and B) on pages 12 and 13, but it may be pointed out that 83·9 per cent. of them were resident in County and Borough Mental Hospitals.



## MOVEMENT OF PATIENTS.

*Admissions, Discharges, Transfers to other Care, and Deaths in 1937.*—Owing to the absence of detailed information of the movement of the persons suffering from mental disorder in Public Assistance Institutions and Public Health General Hospitals, and of those in receipt of Outdoor Relief, particulars as to the persons in these forms of care are not included below; and it is for this reason that the total number under care (p. 11) differs from the number remaining at the end of the year as given below.

The subjoined statement includes patients of each status (voluntary, temporary and certified):

Resident on 1st January, 1937	...	...	...	136,721
Direct Admissions	...	...	...	30,579
Indirect Admissions (excluding regradings)	...	...	...	2,612
				<hr/> 169,912 <hr/>
Discharged and Departed—				
Recovered	...	...	...	9,544
Relieved	...	...	...	6,997
Not Improved	...	...	...	2,041
*By operation of law	...	...	...	208
“Not now Insane”	...	...	...	6
Transferred (under order) to other care	...	...	...	2,538
Died	...	...	...	9,685
Remained at end of year	...	...	...	138,893
				<hr/> 169,912 <hr/>

The *daily average number resident* was 137,057 (males 60,954, females 76,103)—the proportion of those resident in County and Borough Mental Hospitals being 95·0 per cent.

*Direct admissions* numbered 30,579 (males 13,243, females 17,336) of whom 87·9 per cent. were admitted to County and Borough Mental Hospitals. The proportion per cent. of these admissions in each status was—voluntary 35·8; temporary 5·1; certified 59·1; the similar proportions for the previous year being—voluntary 31·9; temporary 5·2; certified 62·9.

The ratio of admissions per 10,000 of the population (aged 16 years and upwards) of England and Wales was 9·74 (males 8·94, females 10·47) and shows an increase on the previous year of 0·31 (males 0·22, females 0·40).

*First admissions* during 1937 numbered 22,459 (males 9,903, females 12,556) or 73·4 per cent. of all the direct admissions.

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\* Either by reason of irregular admission documents, lapsing of reception orders (s. 38, Lunacy Act, 1890, and s. 7, Lunacy Act, 1891), or discharge after escape (s. 85, Lunacy Act, 1890).

The ratio of first admissions per 10,000 of the population (aged 16 years and upwards) of England and Wales was 7·16 (males 6·68, females 7·58), the average ratio for the preceding quinquennium being 6·82 (males 6·52, females 7·09).

*Discharges and Departures*—that is certified and temporary patients discharged, and voluntary patients who departed, from statutory care (as recovered, relieved or not improved)—numbered 18,582 (males 7,890, females 10,692). Of these, 9,544 were discharged as recovered, yielding a recovery rate per cent., calculated on the direct admissions, of 31·2 (29·1 for males, 32·8 for females). The discharges as relieved and not improved numbered respectively 6,997 and 2,041; and if these and the 6 discharged on admission as not now insane and the 135 cases discharged after escape (section 85) are added, it shows that the percentage of the total absolute discharges and departures, calculated on the direct admissions, was 61·2, as compared with an average for the preceding quinquennium of 59·5. The percentage distribution of these absolute discharges and departures was—voluntary, 48·1; temporary, 3·2; certified, 48·7.

*Deaths* numbered 9,685 (males 4,331, females 5,354) and were 358 more than in the previous year. The death-rate per cent. of the daily average number resident was 7·07, being 0·17 above the rate for 1936; the rate for males was 7·11 per cent., and for females 7·04. The average rates for the preceding quinquennium were—males 7·34, females 6·81, total 7·04.

*Transfers to Other Care, etc.*—During the year 2,612 patients were transferred to another institution or to or from single-care, or were (in a few instances) indirect admissions following discharge by operation of law. Such cases, as well as the regradings detailed on page 14, are technically termed *indirect* admissions and call for no further comment.

*Numbers remaining under Care.*—The number of patients remaining under care (with the exception of those in Public Assistance Institutions and Public Health General Hospitals and those in receipt of Outdoor Relief) on the 31st December, 1937, was 138,893 (males 61,641, females 77,252), an increase of 2,172 patients during the year.

## COUNTY AND BOROUGH MENTAL HOSPITALS.

(One hundred and one in number.)

### 1. Accommodation.

On the 1st January, 1938, accommodation in recognized bed-space was provided in County and Borough Mental Hospitals for 128,344 (males 57,018, females 71,326), and there were on the books of these hospitals 1,611 males and 1,997 females in excess of this provision.



A list of these hospitals will be found in Appendix F in Part II.

The deficiency of accommodation disclosed by the foregoing figures is discussed in the Introduction to this Report (see page 1), but it may be mentioned here that during 1937 we approved plans for proposals which are estimated to provide 1,240 additional beds. Details of the proposals are set out below.

Mental Hospital.	Proposal.	No. of beds to be provided or rendered available for patients.
Beds, Herts and Hunts ...	Admission hospital and convalescent homes.	106
Chester C., Birkenhead C.B., Stockport C.B. (part) and Wallasey C.B. : Parkside ...	Four villas each for 44 patients, two villas each for 44 patients, one convalescent home and units for voluntary patients.	324
Hants., Bournemouth C.B., and Southampton C.B. : Park Prewett ...	Two villas for acute cases...	128
Herts ...	Admission ward for male patients.	21
Lancashire Mental Hospitals Board : Lancaster ...	Two temporary buildings	100
Rainhill ...	Admission hospital ...	110
Lincoln (Lindsey and Holland) Grimsby C.B., and Lincoln C.B. : Bracebridge ...	Nurses' home ...	100
London C. : Friern ...	Improvements to Ward 16 and north block.	16
Surrey and Guildford B. : Brookwood...	Sick hospital, tuberculosis block, new isolation block, adaptation of existing isolation block.	142
Isle of Wight ...	Nurses' home ...	35
Yorks, West Riding Mental Hospitals Board : Menston ...	Admission hospital and convalescent homes.	138
Middlesbrough C.B. ...	Adaptation of isolation hospital into an admission unit.	20

### 2. *Dissolution of Agreement to Unite.*

With the consent of the Board the Agreement to Unite dated 23rd October, 1933, entered into between the County of the Parts of Kesteven, the County of the Soke of Peterborough and the Borough of Grantham has been dissolved and a new Agreement to Unite has been entered into between the first and last named Authorities. Under the terms governing the dissolution the new Joint Visiting Committee have agreed to receive in the Rauceby mental hospital the patients belonging to the Soke of Peterborough.

### 3. *Numbers under Care.*

At the end of the year 1937 the County and Borough Mental Hospitals contained 131,952 patients, as follows :—

Status.	Males.	Females.	Total.
Voluntary ... ..	3,486	3,696	7,182
Temporary ... ..	128	359	487
Certified ... ..	55,027	69,256	124,283
Total ... ..	58,641	73,311	131,952

This shows an increase during the year of 1,527 voluntary, and 674 certified patients, the total of temporary patients remaining unchanged.

The numbers of patients in each class were—private, 9,127; rate-aided, 122,739; criminal, 86.

### 4. *Movement of Patients.*

*Direct Admissions.*—During 1937 there were 26,892 direct admissions as shown below :—

Status.	Males.	Females.	Total.
Voluntary :			
Private ... ..	302	497	799
Rate-aided ... ..	3,557	4,058	7,615
Temporary :			
Private ... ..	48	139	187
Rate-aided ... ..	344	873	1,217
Certified :			
Private ... ..	101	240	341
Rate-aided ... ..	7,194	9,431	16,625
Criminal ... ..	90	18	108
Total ... ..	11,636	15,256	26,892

8,414  
(31·3%)

1,404  
(5·2%)

17,074  
(63·5%)



As compared with the direct admissions in 1936, there were increases of 1,510 in the voluntary admissions and 43 in the temporary, while those of the certified status decreased by 321, resulting in a total net increase of 1,232 in the direct admissions.

*First Attack Cases.*—Particulars of these admissions during 1937 are not yet available, but it may be stated that, of the direct admissions in 1937, nearly 28 per cent. (voluntary 32 per cent., temporary 11 per cent., and certified 27 per cent.) had previously been dealt with under the Lunacy and Mental Treatment Acts.

*Departures and Discharges.*—The following table shows the status and mental condition at time of discharge of the absolute departures and discharges during 1937. Patients discharged on admission as “not now insane” and those discharged after escape (sec. 85) are not included.

At time of discharge.		Males.	Females.	Total.	
Status.	Mental Condition.				
Voluntary...	{ Recovered ...	1,161	1,713	2,874	6,715 (43·2%)
	{ Relieved ...	1,258	1,442	2,700	
	{ Not Improved	548	593	1,141	
Temporary	{ Recovered ...	66	257	323	525 (3·4%)
	{ Relieved ...	33	117	150	
	{ Not Improved	12	40	52	
Certified ...	{ Recovered ...	2,209	3,094	5,303	8,283 (53·4%)
	{ Relieved ...	999	1,537	2,536	
	{ Not Improved	216	228	444	
Total ...		6,502	9,021	15,523	

The percentage of total discharges (recovered, relieved and not improved) to the admissions was 57·7, and of recoveries alone 31·6 (males 29·5, females 33·2).

*Deaths.*—During the year 9,116 patients (4,107 males and 5,009 females) died.

The proportion per cent. of deaths to the daily average number resident was 7·00 (males 7·09, females 6·94); this was 0·19 above that for the previous year and 0·17 below the mean percentage for the preceding ten years.

The number of post-mortem examinations was 5,500, being 60·3 per cent. of the deaths. The proportion of these examinations varied from 93 per cent. or over at the Bucks, Cumberland, Barming Heath, Napsbury, Nottingham County, East Riding and Leicester City Mental Hospitals to such a low percentage as 8·6 (Northumberland).



*Service Patients.*—The number of Service patients resident at the close of the year in County and Borough Mental Hospitals was 4,015, a decrease of 83 during the year. On the same date there were also 338 ex-Service patients (7 less than a year ago), the cost of whose maintenance is defrayed by the Board from a special Exchequer grant (see 11th Report, page 31).

5. *Use of Voluntary and Temporary Treatment.*

County and Borough Mental Hospitals receive over 87 per cent. of the admissions into the various forms of care and the two tables which follow indicate the extent to which the various hospitals make use of the procedures for voluntary and temporary treatment and thereby avoid resort to admission under certificate.

*Proportion of voluntary admissions to total direct admissions.*

Percentages.	Hospitals.
5-9	Cambridge, Lancaster, Prestwich, Rauceby. (4 hospitals.)
10-14	Denbigh, Bracebridge, Northumberland, Storthes Hall. (4 hospitals.)
15-24	Berks, Brecon, Carmarthen, Chester, Parkside, Cornwall, Cumberland, Durham, Barming Heath, Rainhill, Whittingham, Winwick, Banstead, Cane Hill, Claybury, Friern, St. Bernard's, Horton, Long Grove, Monmouth, Nottingham County, Oxford, Salop, Wells, Cotford, Stafford, Burntwood, Suffolk, Brookwood, Barnsley Hall, Menston, Winson Green, Rubery Hill, Middlesbrough, Newcastle, Plymouth. (36 hospitals.)
25-34	Severalls, Park Prewett, Chartham, Leicester and Rutland, Bexley, West Park, Napsbury, Norfolk, Cheddleton, Netherne, Warwick, Wilts., Powick, East Riding, Wadsley, Bristol, Canterbury, Gateshead, Hull, Newport, York City. (21 hospitals.)
35-44	Beds, Bucks, Derby County, Devon, Dorset, Brentwood, Glamorgan, Gloucester, Herts, Shenley, Northampton, East Sussex, West Sussex, North Riding, Croydon, Exeter, Leicester City, Norwich. (18 hospitals.)
45 and upwards	Derby Borough (46), Hereford (47), Springfield (48), Nottingham City (48), Wakefield (50), Runwell (50), Ipswich (52), Knowle (53), Isle of Wight (55), Brighton (55), West Ham (56), Sunderland (58), Portsmouth (66), Cardiff (68), Swansea (70). (15 hospitals.)

The high percentages at St. Ebba's (69), Scalebor Park (63), and the City of London (62) should be mentioned; these are not included in the table because of the special conditions which obtain at these three hospitals and which would make comparison with the others fallacious.

*Proportion of temporary admissions to total direct admissions.*

Percentages.	Hospitals.
Nil	Prestwich, Monmouth, Norfolk, Wilts., Leicester City, Newcastle. (6 hospitals.)
Less than 0·5	Parkside.
0·5-4	Berks., Cambridge, Carmarthen, Chester, Cornwall, Devon, Knowle, Park Prewett, Barming Heath, Lancaster, Rainhill, Winwick, Leicester and Rutland, Bracebridge, Rauceby, Banstead, Bexley, Cane Hill, Claybury, Friern, St. Bernard's, Horton, Long Grove, West Park, Springfield, Napsbury, Shenley, Northampton, Northumberland, Nottingham County, Salop, Wells, Cotford, Stafford, Burntwood, Brookwood, East Sussex, Powick, Barnsley Hall, East Riding, North Riding, Menston, Storthes Hall, Winson Green, Rubery Hill, Croydon, Gateshead, Hull, Newport, Norwich, Plymouth, Swansea. (52 hospitals.)
5-9	Beds., Brecon, Cumberland, Denbigh, Dorset, Durham, Glamorgan, Gloucester, Hereford, Herts., Chartham, Whittingham, St. Ebba's, Cheddleton, Suffolk, Netherne, West Sussex, Wakefield, Brighton, Canterbury, Runwell, Exeter, City of London, Middlesbrough. (24 hospitals.)
10 and upwards	Oxford (10), Wadsley (10), Sunderland (10), Bristol (11), Portsmouth (11), Bucks (12), Brentwood (12), Cardiff (12), Isle of Wight (13), Derby County (14), Severalls (14), Scalebor Park (14), Ipswich (15), Warwick (16), Nottingham City (16), West Ham (22), York City (23), Derby Borough (26). (18 hospitals.)

*6. Changes among Superintendents.*

These have been unusually numerous. There have been ten changes among medical superintendents of public mental hospitals, including two instances in which the Superintendent died whilst holding office. As will be seen in a subsequent section, the changes among the Superintendents of the thirteen Registered Hospitals have been proportionately still greater: namely three, two by retirement and one by death.

*Hants (Knowle).*

Dr. John Luke Jackson to our regret died, very suddenly, on the 5th April, 1937. He had been a member of the medical staff here for 25 years, almost the whole of his professional life, for 15 of which he had been Superintendent; since May, 1931, he had held also the position of Principal Medical Adviser to the Joint Mental Health Institutions Committee. His innate capacity for organisation and administration no doubt materially influenced the Committee in their decision to adopt a scheme which virtually established a



County Mental Health Service. Dr. Jackson also gave valuable help in connection with the inception of the colonies for mental defectives known as Tatchbury Mount and Coldeast, and with the provision of an Admission Hospital at Knowle opened in 1933 for 35 patients of each sex. His talents were, however, by no means only for administration and, among his more strictly medical activities, mention may be made of his successful activities in the out-patient treatment of mental illness, and as Chairman of the South Western Division of the Royal Medico-Psychological Association. His fondness for sport was reflected in his keenness to see a good programme of recreations and entertainments maintained at the Hospital. In the War he was an early volunteer, saw service in Gallipoli, Egypt and France, endured the stress of being a prisoner of war in Germany, was twice mentioned in despatches, and was awarded the French Croix de Guerre.

To fill the vacancy caused by Dr. Jackson's untimely death, the Joint Mental Health Committee, after advertising the post, appointed Dr. Cyril James Thomas (M.R.C.S.Eng., L.R.C.P.Lond., D.P.M., D.P.H.), Superintendent of Wakefield Mental Hospital, a position he had filled with distinction for some 3½ years.

#### *Hereford.*

Dr. Gerald William Thomas Hunter Fleming, who was appointed Superintendent here at the end of 1931, relinquished that position in June, 1937, on his appointment as Superintendent of Barnwood House (Gloucester). During his superintendentship an outstanding event was the acquisition of Holme Lacy. Formerly the Herefordshire seat of the Earls of Chesterfield and famous for the beauty of its grounds as well as its other attractions, it had been presented in 1929 by Mrs. Margaret Hamilton Wills to the Herefordshire County Council, from whom in 1934 the mansion and some 23 acres of the estate were rented by the Visiting Committee for a period of 60 years, and adapted for patients mostly of the private class. Throughout the consideration of these proposals and later during the process of equipment and initial development, Dr. Fleming's support and advice did much to bring the project to successful fruition.

To fill the vacancy thus caused the Committee promoted the Deputy Superintendent, Dr. Thomas Eggleston Burrows (M.R.C.S. Eng., L.R.C.P.Lond., D.P.M.) who had been a member of this hospital's medical staff since October, 1934, having had some previous experience at Bethlem and Maida Vale Hospital, besides a house appointment at St. Bartholomew's Hospital.

#### *County Palatine of Lancaster :*

##### *Lancaster.*

Dr. Robert Poole Sephton retired at the end of September, 1937. After a few months initial experience at The Lawn (Lincoln) he had been for 31 years a member of the medical staffs of two of the mental hospitals under the Lancashire Mental Hospitals Board, including



rather more than three years as Deputy Superintendent first at Winwick and then at Lancaster and nearly eleven years as Superintendent at Lancaster. Several serviceable structural improvements were effected during his superintendentship, including the removal of Committee rooms and offices to more commodious quarters at the Annex. During 1937 there were also erected two detached units for the temporary accommodation of 50 patients of each sex so designed that, when the present overcrowding has been met, they can be used for other purposes, such, for example, as occupational therapy. A more important undertaking, however, has been the preparation of plans for an Admission Hospital for 110 patients (50 men and 60 women) which when erected will include notable additions to the medical and scientific resources of the hospital, and which, if the Convalescent Homes now under consideration are built, will form with the latter an important Early Treatment Centre for nervous and mental disorders in the northern part of the county.

In succession to Dr. Sephton and after the post had been advertised, promotion was given to Dr. Joseph Denzil Silverston (M.B. Durham) who, after general hospital experience at Newcastle-on-Tyne and a short period as clinical assistant at Sunderland Mental Hospital, had been for 16 years a member of the medical staffs at Whittingham and Lancaster, during the last  $10\frac{1}{2}$  years of which he was Deputy Superintendent at Lancaster.

#### *Winwick.*

Major Frederick Millar Rodgers, O.B.E., M.D., retired at the end of October, 1937, after a tenure of nearly 13 years of the post of Superintendent here, to which position he had been transferred within a few months of his appointment as Superintendent of Prestwich Mental Hospital. He had previously been for 20 years a member of the medical staff at Winwick; so that, in all he had had 34 years' mental hospital service. He proved himself an able and efficient administrator, and was zealous in the promotion of a good standard of medical work. During the time this institution operated as The Lord Derby War Hospital he rendered excellent service as its Registrar. The years of his superintendentship have been marked by various improvements to the hospital, notably extension of its verandah facilities; also the erection in 1937 of a pair of detached units similar in design and purpose to those mentioned above at Lancaster, affording temporary accommodation for 50 male and 60 female patients. Dr. Rodgers gave valuable assistance, too, in the planning of an Early Treatment Centre here which will comprise an admission hospital now in course of erection for 50 men and 60 women and a pair of convalescent homes for 25 patients of each sex.

To fill this vacancy, and after advertising the post, the Lancashire Mental Hospitals Board promoted Dr. John Ernest Nicole (L.M.S.S.A., D.P.M.), who for  $17\frac{1}{2}$  years had been a member of the medical



staffs of the mental hospitals at Prestwich and Winwick, including three years as Deputy Superintendent of Winwick.

*Worcestershire (Barnsley Hall).*

Dr. Arthur Marcus Firth, whose health during the four years he had been Superintendent here had not been good, to our regret died in May, 1937. A scholarly and conscientious officer, he had devoted in all 33 years of his professional life to mental hospital service, including ten years at Wadsley. He actively interested himself in treatment of mental cases at out-patient centres, and, during the year before his death, besides assisting in the consideration of plans for an operating theatre, Dr. Firth gave valuable help in connection with the projected provision of an Admission hospital.

To fill the vacancy the Committee of Visitors promoted Dr. Andrew Shepherd (M.B.Glasg., D.P.M.), who had been Deputy Superintendent here for nearly four years and who, with previous service at Hill End, had had nine years' mental hospital experience.

*West Riding (Wakefield).*

Dr. Cyril James Thomas, who since April, 1934, had occupied the position of Superintendent here, relinquished this position in September, 1937, on his appointment as Principal Medical Adviser to the Hants Joint Mental Hospital Institutions Committee and Superintendent of the mental hospital at Knowle. During his 3½ years at Wakefield, Dr. Thomas proved himself an able administrator, not only in the hospital's management and in the standards set for its medical work but also in connection with the scheme for its projected re-organisation. He was largely responsible for the development of several active centres for the out-patient treatment of nervous and mental disorders at general hospitals and for a steadily expanding scheme of occupation therapy. At the University of Leeds he was Clinical Lecturer in mental disorders.

To fill the vacancy thus caused, and after advertising the post, the West Riding Mental Hospitals Board promoted Dr. Mathew Joseph McGrath (M.B., R.U.I., D.P.M.Leeds), who had been Deputy Superintendent here since June, 1915, and who, besides some initial general hospital experience, including a short period at Banstead Mental Hospital and at Brislington House, had had 26 years experience in the treatment of mental disorders. He had also lectured and examined in this branch of medicine in the University of Leeds. The Supplement to the Board's Annual Reports is indebted to him over a series of some seventeen years for his joint authorship of an annual report on "Asylum Dysentery and Allied Infections."

*Brighton.*

Dr. George Hastie Harper-Smith, who for 14 years had filled with great ability the post here of Superintendent, retired at the end of 1937. He had previously been a member of this hospital's medical staff for 13 years and for six years at Claybury; so that,



in all, he had had  $33\frac{1}{2}$  years mental hospital service. With the good will of the Committee, he was largely instrumental in the carrying out of many improvements and some notable additions. Among the latter was the purchase in 1929 of Beechmont and its adaptation during the following year for women patients of the private class. He was also closely associated with the preparation of the plans of the Admission Hospital for 20 male and 30 female patients, which was approaching completion at the time he left. As one of the Honorary Physicians at the Lady Chichester Hospital (Hove), and as one of the medical officers in charge of the Department for early nervous disorders at the Royal Sussex Hospital, he gave, and still gives, much help in the establishment of out-patient centres and other arrangements for the treatment of mental illness in its early stages.

As his successor, and after advertising the post, the Committee of Visitors appointed Dr. William McCartan (M.D.Belf., M.R.C.P. Lond., D.P.M., D.P.H.), who at the time was Deputy Superintendent at Banstead Mental Hospital, a position he had held for some 18 months, and who, with service at Hanwell, Cane Hill and West Park, had had  $12\frac{1}{2}$  years mental hospital experience. He had also held resident posts at The Maudsley and Maida Vale Hospitals, as well as having had some resident general Hospital experience.

#### *Cardiff.*

Dr. Peter Knight McCowan, F.R.C.P., Barrister-at-Law, who for nearly eight years had been Superintendent here, relinquished his post at the end of February, 1937, in order to accept that of Physician-Superintendent of the Crichton Royal Institution (Dumfries). At Cardiff his ability as an administrator as well as his high attainments both as a physician and as a teacher in Psychological Medicine were manifest: likewise his keenness in the furtherance of research, and in the vigorous development of occupation therapy.

As his successor the Committee, after advertising the vacancy, promoted Dr. Thomas John Hennelly (M.D., R.U.I., D.P.M.), who had been a member of the medical staff here for nearly four years, during the last two of which he had been Deputy Superintendent. With previous service at Brookwood and Powick he had had nearly eight years mental hospital experience.

#### *Leicester City.*

Lt.-Colonel Joseph Francis Dixon, M.A., M.D., who for nearly 26 years, and with distinction as well as much ability, had occupied the post of Superintendent here, retired at the end of June, 1937. It was hoped that rest from official responsibility would bring about restoration of his health, which at the time was far from good. To our regret, however, he died on the 26th of the following November. Including some years as a member of the medical staff of the Three Counties Mental Hospital (Hitchin) he had devoted 33 years of his professional life to the treatment of mental disorders. Of strong



and pleasing personality and with conspicuous administrative ability, he possessed a remarkably individual knowledge of his patients, whose contentment and welfare were obviously his particular aim. In all such matters as the development of parole and open-door wards, in the betterment of dietaries and methods of cooking, and in the improvement of toilet facilities and dress and of the practice of allowing patients to wear their own clothing, he took a leading interest. Among the many improvements to the hospital which took place during his superintendentship mention may be made of the centralising of the heating and power plant, the enlargement of its inconveniently small estate of scarcely 100 acres to some 380 acres, the purchase of houses on it as residences for officials, the conversion of Humberstone Lodge for the admission of voluntary patients pending the erection of an Admission Hospital, and the provision of the fine Nurses' Home which was opened by our Chairman in 1930.

In succession to Dr. Dixon, the Committee promoted the Deputy Superintendent, Dr. Thomas Wishart Davidson (M.B.Glasg., D.P.M.), who with some previous experience at Winwick had had nearly 13 years' mental hospital experience.

#### *West Ham.*

Dr. James Harvey Cuthbert, who had been a member of the medical staff here for 24 years, for  $11\frac{1}{2}$  of which he had held the post of Superintendent, retired at the end of 1937. The period of his superintendentship was one of great activity in the expansion of the hospital; its accommodation, besides the provision of a fine Nurses' Home and a unit for occupation therapy, having been extended by the addition of 400 beds. In this extension were comprised an Early Treatment Centre (with one admission unit and two for convalescing cases), two units for sick-nursing, and five villas for able-bodied patients mostly of a type to whom parole can be accorded. In the development of this scheme of additions, all of which enhanced the hospital's means of classification, and most of which provided notable additions to its resources for treatment, Dr. Cuthbert gave active and valuable assistance. It was under him, too, that careful arrangements were made for the use of Insulin-shock as one of the means of treatment pursued at this hospital.

As Dr. Cuthbert's successor, the Committee of Visitors promoted Dr. George Somerville (M.D.Edin., D.P.M.), the Deputy Superintendent. He had held that position for  $11\frac{1}{2}$  years and, with previous junior service here and a few months at the Devon Mental Hospital, he had had rather more than 14 years mental hospital experience. Holding honorary appointments at voluntary hospitals, he had been giving much valuable help, too, in furthering out-patient and other early treatment of mental disorders.

7. *Causes of Death during 1936.*

The time that elapses between the receipt of the mortality statistics for any given year and the preparation for publication of our Report for that year is too short to permit of the compilation of a detailed summary and its adequate study. The subjoined table, therefore, refers to the deaths that occurred in County and Borough Mental Hospitals during 1936, the equivalent details relating to the year covered by this Report (1937) being not yet available. Some mention, however, will be made, in the section that follows this, of the mortality for 1937 in regard to certain

*Causes of Death in the cases of all Patients in County and Borough Mental Hospitals who died during the year 1936. The daily average number of patients resident during the year 1936 was 128,183 (Males, 57,063; Females, 71,120).*

Cause of Death. (the numerals refer to the revised (1929) International List of Causes of Death as adapted by the Registrar- General for use in England and Wales.)						Number of Deaths.		
						Male.	Fem.	Total.
1 & 2.	Typhoid and paratyphoid fevers	...				3	16	19
8.	Scarlet fever	...	...	...	...	2	—	2
10.	Diphtheria	...	...	...	...	—	2	2
11.	Influenza	...	...	...	...	21	36	57
13.	Dysentery	...	...	...	...	17	16	33
15.	Erysipelas	...	...	...	...	12	13	25
17.	Encephalitis lethargica	...	...	...	...	12	12	24
23.	Tuberculosis of the respiratory system	...				275	241	516
24-32.	Other forms of tuberculosis	...	...			46	21	67
45-53.	Cancer and other malignant tumours	...				200	233	433
59.	Diabetes	...	...	...	...	18	28	46
62.	Pellagra	...	...	...	...	—	3	3
82.	Cerebral haemorrhage, apoplexy, etc.	...				201	230	431
83.	General paralysis of the insane	...	...			445	162	607
84.	Other forms of insanity	...	...	...	...	102	113	215
85.	Epilepsy	...	...	...	...	154	113	267
87.	Other diseases of the nervous system	...				42	54	96
91.	Acute endocarditis	...	...	...	...	7	21	28
92.	Chronic endocarditis, valvular disease	...				170	262	432
93.	Diseases of the myocardium	...	...			557	795	1,352
94.	Diseases of the coronary arteries, angina pectoris	...	...	...	...	36	36	72
95.	Other diseases of the heart	...	...			74	89	163
97.	Arterio-sclerosis	...	...	...	...	361	377	738
106.	Bronchitis	...	...	...	...	57	68	125
107-109.	Pneumonia (all forms)	...	...	...	...	456	788	1,244
119 & 120.	Diarrhoea and enteritis	...	...	...	...	9	16	25
130 & 131.	Nephritis	...	...	...	...	123	151	274
162.	Old Age	...	...	...	...	217	378	595
	Violent deaths (including suicide)	...				57	41	98
	All other causes	...	...	...	...	330	405	735
Total						4,004	4,720	8,724



diseases, particular reference to which necessitates the production of the latest possible information. This procedure is in accord with that adopted during recent years.

*8. Infectious and other Diseases during 1937.*

The following table shows the incidence of certain infectious diseases among the patients and staffs of County and Borough Mental Hospitals during the year.

	Patients.			Staff.		
	M.	F.	T.	M.	F.	T.
Scarlet Fever ... ..	13	20	33	1	7	8
Diphtheria ... ..	9	29	38	—	41	41
Measles ... ..	1	4	5	—	2	2
Chicken Pox ... ..	15	—	15	—	—	—
Puerperal Fever ... ..	—	5	5	—	—	—

The deaths from these infectious diseases were :—scarlet fever, one female patient; diphtheria, two male and two female patients; puerperal fever, one patient.

*Tuberculosis.*

There were 972 cases of pulmonary tuberculosis under treatment at the end of the year and 182 cases of other forms of tuberculosis. These figures taken together are equivalent to a prevalence in the mental hospitals of 8·7 cases of tuberculosis per thousand patients. On the same date four female members of the hospitals' staffs were under treatment for this disease.

*Incidence.*—The numbers and ratio of fresh cases arising during the year are shown in the following table. For purposes of comparison the corresponding particulars for the past decade have been set out.

Tuberculosis.									
Year.	Daily Average Number of Patients resident.	Incidence. Fresh Cases (all forms).		Deaths.			Phthisis.		
		No.	Ratio per 1,000 resident.	Other forms.		No.	Ratio per 1,000 resident.	All forms.	
								No.	Ratio per 1,000 resident.
1928	...	907	8.0	617	5.4	88	0.8	705	6.2
1929	...	985	8.5	725	6.3	78	0.7	803	6.9
1930	...	948	8.0	667	5.7	72	0.6	739	6.3
1931	...	924	7.7	616	5.1	73	0.6	689	5.7
1932	...	1,004	8.3	657	5.4	79	0.7	736	6.1
1933	...	950	7.7	635	5.2	79	0.6	714	5.8
1934	...	820	6.6	553	4.4	59	0.5	612	4.9
1935	...	791	6.3	525	4.2	51	0.4	576	4.6
1936	...	878	6.8	516	4.0	67	0.5	583	4.5
1937	...	862	6.6	539	4.1	51	0.4	590	4.5



The Enteric Group.

There were 59 cases (6 males, 53 females) of typhoid and paratyphoid fevers during the year, reported from 27 hospitals. In addition eight women nurses were affected, one of whom died.

Year.	Enteric Fever.									
	Patients.						Staff.			
	Incidence.			Deaths.			Incidence.			Deaths.
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M. F.
1928 ... ..	50	169	219	25	50	75	5	12	17	— 2
1929 ... ..	16	104	120	6	26	32	—	14	14	— 2
1930 ... ..	34	72	106	9	19	28	—	—	—	— —
1931 ... ..	21	89	110	6	14	20	—	—	—	— —
1932 ... ..	16	83	99	5	20	25	—	10	10	— 1
1933 ... ..	83	117	200	26	25	51	1	9	10	— 1
1934 ... ..	10	42	52	1	13	14	1	12	13	1 2
1935 ... ..	23	70	93	5	17	22	—	3	3	— 1
1936 ... ..	10	54	64	3	16	19	—	7	7	— —
1937 ... ..	6	53	59	4	21	25	—	8	8	— 1

During the past ten years—in a total of 1,122 patients affected—76 per cent. have been women, and the case mortality has been 27·7 per cent. (males 35·5; females 25·9).

Dysentery.

The figures for the past decade are shown in the table which follows.

Year.	Dysentery.			Severe Diarrhœa.
	Fresh cases.	Incidence rate per 1,000.	Death rate per 1,000.	Fresh cases.
1928 ... ..	403	3·5	0·6	201
1929 ... ..	372	3·2	0·3	193
1930 ... ..	254	2·2	0·2	189
1931 ... ..	423	3·5	0·4	269
1932 ... ..	563	4·6	0·4	220
1933 ... ..	457	3·7	0·4	223
1934 ... ..	450	3·6	0·4	383
1935 ... ..	487	3·9	0·4	276
1936 ... ..	396	3·1	0·3	150
1937 ... ..	469	3·6	0·3	192

The number of cases of dysentery, reported from 44 hospitals, was 469, an increase of 73 on the number during 1936. The death rate was 0·3 per 1,000.

The sharp rise shown in the number of cases notified in England and Wales during the past three years has not been reflected in the returns from our mental hospitals. But there is some evidence to show that, while there has been less dysentery caused by the Flexner group of organisms, cases of Sonne dysentery have appeared in increasing numbers. Of the 469 cases reported from mental hospitals during 1937 in 80 cases the Sonne bacillus was isolated, the location of these cases being mainly in the London area, in South Wales and in the south-western counties.

#### *Erysipelas.*

There have been in all 270 (89 male and 181 female) cases of erysipelas reported from 65 hospitals. There were 18 deaths. The highest incidences were at Banstead 20, Horton 14, Barming Heath 13, Springfield 13, Storthes Hall 12, and Durham 11.

#### *Influenza.*

The notifications of this infection numbered 9,368, including 159 cases of influenzal pneumonia. There were 207 deaths, a case percentage of 2·2.

#### *Pneumonia, etc.*

Non-tuberculous inflammatory diseases of the lungs and bronchi resulted in the deaths of 650 males and 916 females, a total of 1,566, of whom 861 were over the age of 55.

The group constitutes 17·2 per cent. of the deaths from all causes.

#### *Pellagra.*

During the year thirteen cases of pellagra have been reported, two of which terminated fatally.

### REGISTERED HOSPITALS.

*(Thirteen in number.)*

A list of these hospitals will be found in Appendix F in Part II.

*Patients resident on 1st January, 1938.*

Status.					Males.	Females.	Total.
Voluntary ...	...	...	...	...	258	403	661
Temporary	...	...	...	...	9	27	36
Certified ...	...	...	...	...	708	1,098	1,806
Total	...	...	...	...	975	1,528	2,503



The number of patients resident in these hospitals showed an increase of four during the year.

*Direct Admissions* during 1937 numbered 1,032 (males 424, females 608). Voluntary patients formed 69·8 per cent. of the total, while 6·4 per cent. were temporary and 23·8 per cent. certified.

*Departures and Discharges.*—The percentage of total departures and discharges (recovered, relieved and not improved) to the admissions was 77·4 and of recoveries alone 39·1 (males 39·2, females 39·0). The percentage distribution of the departures and discharges was—voluntary, 78·4; temporary 3·1; certified, 18·5.

*Deaths* in these hospitals numbered 197 and the death rate per cent. of the daily average number of patients resident was 8·0 (males 9·0, females 7·4).

#### *Changes among Superintendents.*

During the year 1937 there have been three changes among the Superintendents of these hospitals, two by retirement and one by death; and, during the preparation of this Report, three others, again including one by death, have occurred. That in connection with 13 senior posts six changes should have occurred within comparatively so short an interval is quite unusual and remarkable.

*Barnwood House (Gloucester).*—Dr. Arthur Allen Deykin Townsend, who for the long time of nearly 47 years had been a member of this hospital's medical staff and for 18 years its Superintendent, retired at the end of June, 1937. An accomplished physician, endowed with good business capacity and a personality that won confidence, Dr. Townsend made an admirable head of this hospital. It was under him that a wider extension of the use of voluntary treatment took place—the percentage of admissions received upon their own voluntary applications rising from 20 to no less than 55 during his superintendentship. The success, too, that was attending his efforts to develop occupation of the patients deserves mention.

As his successor and after advertising the vacancy, the Committee appointed Dr. Gerald Wm. T. H. Fleming (M.R.C.S.Eng., L.R.C.P. Lond., D.P.M.) who for rather more than five years had been Superintendent of the Hereford County and City Mental Hospital, besides previous valuable experience at Herrison (Dorchester).

*Bootham Park (York).*—Dr. George Rutherford Jeffrey, F.R.C.P. Edin., F.R.S.E., who for 25 years had successfully occupied the post of Superintendent, retired at the end of August, 1937. Appointed here at the end of 1912, he brought with him eight years particularly valuable previous experience, six of which were at Crichton Royal (Dumfries) and two at Glengall Hospital (Ayr). A happy facility to see the patients' points of view and an unfailing courtesy, as well as a very single-minded devotion to the interests of his hospital, have enabled



him to maintain the high reputation of Bootham Park. For some considerable time Dr. Jeffrey's health has troubled him, but we trust that, with relief from official responsibility, its restoration will be complete.

In filling the vacancy thus caused, and after advertising the post, the Committee appointed Dr. David Robertson (M.D.Glasg., D.P.M.), who for a year-and-a-half had been Deputy Superintendent at Scalebor Park and who, with nearly ten years previous service at Bethlem and three at Hawkhead, had had some 14 years mental hospital experience.

*St. Andrew's (Northampton).*—Dr. Daniel Frederick Rambaut whose health for some months had been causing anxiety, to our regret died on the 30th of last November. With great ability and much distinction he had been Superintendent of this, the largest of the Registered Hospitals, for nearly a quarter of a century. A distinguished graduate of Trinity College, Dublin, he began his professional work at The Richmond (now known as Grangegorman Mental Hospital) under Dr. Conolly, renowned as a teacher in mental disorders. From there he was appointed in 1902 as Superintendent of the Shropshire Mental Hospital at Bicton (which at the time was owned jointly by Shropshire and Montgomeryshire). Thus, when 10½ years later he was appointed Superintendent of St. Andrew's Hospital, he was able to bring to this important post, besides a personality of special fitness for his new duties, a matured experience in the treatment of mental disorders and in mental hospital management which went far to ensure the success he attained. Improvements effected during his superintendentship were many; but the outstanding event was the erection of Wantage House for 32 patients (16 of each sex) specially designed as a reception unit and—with an X-ray installation, operating rooms, many forms of special treatment, including Turkish baths, and extensive laboratory facilities—both to serve as a Treatment Centre and to afford opportunities for research. In the planning, equipping and development of this now well-known unit Dr. Rambaut gave notable help. Mention, too, may be made of the fine Sports Ground at St. Andrew's, in the formation of which he gave an enthusiastic lead, stimulated no doubt by his own prowess as an athlete. In 1934 he had the distinction of being elected President of the Royal Medico-Psychological Association, of which at the time of his death he had been Registrar for 13 years. In this latter capacity his influence on behalf of training in mental nursing had been great.

To succeed Dr. Rambaut, and following advertisement of the vacancy, the Committee appointed Dr. Thomas Tennent (M.D.Glasg., M.R.C.P.Lond., D.P.M., D.P.H.), who for 12 years had been a member of the Maudsley Hospital medical staff, for six years of which he had been Deputy Superintendent, and had held a like position for over two years at the Renfrewshire Mental Hospital



(Dykebar), besides house-posts at the teaching hospital of his medical school. At the time of his appointment to St. Andrew's he also was holding honorary posts at the Miller Hospital (Greenwich), and at King's College Hospital, and was lecturer in psychological medicine at the Maudsley.

#### NAVAL AND MILITARY HOSPITALS.

*Royal Naval Hospital, Great Yarmouth.*—On the 12th July, 1937, when a Commissioner visited this hospital, there were 210 patients in residence, of whom 26 were officers. The number of vacancies, namely 48, was thus exactly the same as that at the time of the visit of a Commissioner in 1936, though seven patients had been admitted on transfer from other mental hospitals during the year as the result of efforts to make the amenities and facilities for treatment at this hospital more widely known.

The general health of the patients was found to be excellent and the Commissioner was impressed by the high standard of nursing maintained in the sick wards.

Plenty of healthy and useful outdoor employment is provided in the grounds, gardens and greenhouses. Individual allotments have been introduced and are proving an attractive form of competitive occupation. Woodwork and other industries provide other interesting and useful employment for the patients. Most of the material used is waste and, in the process of manufacture, opportunity is found for the employment of patients of all grades.

The dietary is ample in quantity and appeared to be excellent in quality.

The hospital was in all respects well ordered. Considerable works of renovation, redecoration and improvement have recently been carried out, including the provision of an additional sitting and recreation-room, and the retiling of the sanitary units throughout the hospital is being proceeded with.

The patients were without complaint and the Commissioner was struck by the atmosphere of general contentment which prevailed throughout the hospital.

*Royal Military Hospital, Netley.*—The Commissioner who visited "D" Block of the Royal Victoria Hospital, Netley, on 5th November, 1937, found 37 patients under care and treatment, no one of whom was an officer.

The wards were in an excellent state of order and cleanliness and several outdoor games are available.

Including orderlies attached for training the nursing staff consists of 30 Royal Army Medical Corps orderlies, of whom 19 are trained in mental nursing. Six of the latter hold the Certificate of the Royal Medico-Psychological Association.

## STATE CRIMINAL ASYLUM, BROADMOOR.

Three Commissioners visited this institution on 1st November, 1937.

They were pleased to find that recent efforts made to improve the organisation of occupational treatment in the female division were meeting with considerable success, but felt that there was still a good deal of scope in this direction on the male side.

Several useful improvements were noted, including the complete redecoration and refurnishing of Female Block I, which appeared to have been admirably executed.

The number of patients resident was 757—males 584, females 173.

## LICENSED HOUSES.

(Fifty in number.)

At the end of the year 1937 there were 19 Metropolitan Houses licensed by us and 31 Provincial Houses licensed by Justices for the reception of patients under the Lunacy and Mental Treatment Acts.

*Patients resident on 1st January, 1938.*

Status.	Males.	Females.	Total.
Metropolitan Houses :			
Voluntary ... ..	90	163	253
Temporary ... ..	1	14	15
Certified ... ..	261	538	799
Provincial Houses :			
Voluntary ... ..	117	238	355
Temporary ... ..	3	8	11
Certified ... ..	536	842	1,378
Total ... ..	1,008	1,803	2,811

The total number of patients resident in these houses showed a decrease of 52 during the year.

*Direct Admissions* numbered 1,282 (males 446, females 836). Of the total number 65·7 per cent. were voluntary patients, 6·8 per cent. were temporary and 27·5 per cent. were certified.

*Departures and Discharges.*—The percentage of total departures and discharges (recovered, relieved and not improved) calculated on the admissions was 75·1, and of recoveries alone 23·9 (males 23·5, females 24·2). The percentage distribution of the departures and discharges was—voluntary, 76·1; temporary, 4·2; certified, 19·7.

The *deaths* numbered 303, and the death-rate per cent. of the daily average number of patients resident was 10·8 (males 10·6, females 10·9).



*Variations in Licences.*—The changes that have taken place in the licences are included in the revised list of these houses which, with their present licensees, may be found in Appendix F in Part II.

#### SINGLE-CARE.

The following table shows the number of patients who were resident in private single-care under the provisions of the Lunacy and Mental Treatment Acts, but exclusive of cases found of unsound mind by inquisition.

*Patients resident on 1st January, 1938.*

Status.					Males.	Females.	Total.
Voluntary ...	...	...	...	...	5	7	12
Temporary ...	...	...	...	...	—	1	1
Certified ...	...	...	...	...	69	212	281
Total ...	...	...	...	...	74	220	294

There was a reduction of 3 in the number under care as compared with a year ago, and we are able to report, as a result of our visits to these patients—to some of whom a second visit has been paid—that the arrangements for their care and treatment were generally satisfactory.

#### CERTIFIED PATIENTS IN PUBLIC ASSISTANCE INSTITUTIONS AND PUBLIC HEALTH GENERAL HOSPITALS.\*

The number of patients certified under the Lunacy Acts and detained in Public Assistance Institutions and Public Health General Hospitals at the end of 1937 was 14,872 (males 6,553, females 8,319). It should be noted that these figures relate only to persons certified under the Lunacy Acts, and that they by no means represent the total number of mental cases in these institutions.

Notwithstanding the need for further accommodation in County and Borough Mental Hospitals, there has been no increase in the number of Visiting Committees availing themselves of the facilities afforded by Section 26 of the Lunacy Act, 1890, for providing accommodation in Public Assistance Institutions for selected patients. On the other hand, the agreement—approved in 1928—for the reception of 34 patients of each sex from the East and West Suffolk Mental Hospital in the Risbridge Public Assistance Institution was terminated during the year, the Institution having been approved under Section 37 of the Mental Deficiency Act, 1913, for the reception of mental defectives. The Board issued a Certificate,

\* The number of mental defectives in these institutions will be found on p. 40

however, under Article 112 of the Mental Deficiency Regulations, 1935, in respect of the 68 patients and they were accordingly dealt with under the Mental Deficiency Acts.

#### MENTAL AFTER CARE ASSOCIATION.

The Mental After Care Association has now completed 58 years of work. It was founded, as its name indicates, to assist discharged patients during the critical period when the stress of normal life has again to be faced, and this has remained its principal function. It has given help in various ways to 3,381 patients in the course of the past year. The Association receives into Cottage homes patients requiring convalescence after leaving mental hospitals and voluntary patients who require care. Patients are also boarded out from various mental hospitals, and after-care and help are provided in many ways for those returning to their own homes.

The practical nature of this help may be judged from the fact that it includes grants of money or relief in kind, the supply of clothing, outfits and tools, and the provision of employment in suitable occupations. Assistance is not confined to recent cases only; former patients who find life difficult or whose health may call for a holiday are helped. The Association is now also prepared to find homes for patients attending clinics.

#### PSYCHIATRIC SOCIAL WORKERS.

Psychiatric social workers are still comparatively new and little known as professional workers and there are frequent inquiries as to their function. These inquiries come, not only from the lay public, but from many concerned in administration and from medical men concerned with the treatment and care of mental patients.

The work now carried out in certain mental hospitals and out-patient departments shows the place that such a service can play in the field of mental health work and the value attached to it by medical men. We believe that medical superintendents would agree with us in saying that social workers should be included as part of the team of the hospital workers and that special training and qualifications are necessary to enable them to be of full use. The mental health worker has to consider the patient in relation to his social and economic environment and in order to do this she needs not only an understanding of the patient's mentality but a practical experience of economic and social conditions in the community.

A short survey of the tasks delegated by mental hospital physicians to social workers will serve to point to their value as part of the hospital's staff and also to the need for sound and practical training.



In diagnosis the mental hospital physician needs all the information he can obtain on the personal, family and social history of the patient, some of which can only be obtained by inquiries made through various sources outside the hospital. Here the social worker, acting as a direct assistant to the physician, may be able to throw light on causal factors in the mental breakdown.

During the treatment of a patient in the hospital the physician may find it of value to have a worker who will prevent the patient from losing touch with his home and who will keep the relatives informed on questions relating to the patient's health.

In preparing the way for trial or discharge there is, perhaps, the greatest scope for a trained social worker. When a patient leaves hospital the factor most likely to influence him for good or ill is the attitude adopted towards him by his relatives. So often they do not give him the help he needs, not through any lack of kindness but because they fail to understand what his illness has meant. In this delicate task of explanation and of assessing personal relationships the social worker will need all her experience of human beings and all her judgment. The worker's knowledge of social legislation and social agencies and her experience in co-operating with these agencies are also very important. A debt threatening the whole security of a patient's home; changes in trade conditions; loss of employment perhaps connected with a patient's behaviour in the earliest stages of his illness; the need for training in order to meet a new type of work; delinquency or illness amongst other members of the family; underlying mental deficiency calling for different treatment when the mental illness has cleared up—these are only some of the many problems which have to be dealt with in the course of the social worker's daily round.

The difficulties that many patients go through after discharge add to the likelihood of a further breakdown. A social worker can often establish such a relationship with patients and their relatives in the hospital or at out-patient centres and during periods on trial at home that they turn to her for help and keep in touch of their own accord after discharge in a way that is likely to help in the maintenance of recovery.

Lastly, in undertaking investigations and research on certain subjects the assistance of a trained social worker may be essential.

**II.—MENTAL DEFICIENCY.**

(Mental Deficiency Acts, 1913 to 1927.)

**1. NUMBERS UNDER CARE.**

The mentally defective patients under care at the end of the year 1937 numbered 86,510 (males 44,401, females 42,109); the percentage distribution of the sexes being—males 51·3, females 48·7. Included in this total are the cases under statutory supervision, which numbered 37,817 (males 20,223, females 17,594).

A table showing the distribution of the patients under care is given on the following page. It may be mentioned that the proportion of patients under 16 years of age, of the total of 44,263 patients who were in institutions, was 16 per cent. (males 19 per cent., females 12 per cent.).

During 1937 there were increases of 69 in the State Institution, 1,855 in Certified Institutions, 6 in Approved Homes, 452 among those under Guardianship or notified and 1,510 among those under Statutory Supervision, while there were decreases of 107 in Public Assistance Institutions and Public Health General Hospitals approved under Section 37 of the Mental Deficiency Act, 1913, and of 1 in Certified Houses. These changes resulted in a net increase of 3,784 under care.

The distribution of defectives under care on 1st January, 1928 and 1938, was as follows :—

1st January, 1928. 1st January, 1938.

In Institutions, Houses and Homes provided under the Mental Deficiency Act, 1913 ... ..	22,812	44,263
Under Guardianship or Notified ... ..	1,357	4,430
Under Statutory Supervision ... ..	17,894	37,817

Nearly 74 per cent. of the patients receiving institutional care on 1st January, 1938, were accommodated in Certified Institutions (section 36): the distribution of patients in these institutions according to the conditions under which they were received was as follows :—

	Males.	Females.	Total.
Received under the provisions of the Mental Deficiency Acts ... ..	15,442	15,590	31,032
Received outside the provisions of the Mental Deficiency Acts :—			
Sent by Local Education Authorities ...	789	444	1,233
Sent under the Children and Young Persons Act, 1933 ... ..	9	13	22
Sent by Poor Law Authorities ... ..	102	193	295
Sent by Relatives or others ... ..	11	60	71
Total ... ..	16,353	16,300	32,653



Received under the Mental Deficiency Acts, 1913 to 1927.																		
Where maintained.	Under Orders (secs. 6-9).						Not under Orders (sec. 3)			Total.			Received outside the Mental Deficiency Acts.			Total of all Mental Defectives in Institutions and under Guardianship or Notified.		
	Non-criminal.			Criminal.			M.	F.	T.	M.	F.	T.						
	M.	F.	T.	M.	F.	T.							M.	F.	T.			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.			
	In the State Institution	...	355	471	468	137	8	6	831	614	1,445	—	—	—	831	614	1,445	
In Certified Institutions	...	12,073	14,513	2,487	595	882	482	15,442	15,590	31,032	911	710	1,621	16,353	16,300	32,653		
In Approved (sec. 37) Institutions	...	4,071	4,585	477	144	11	13	4,559	4,742	9,301	—	—	—	4,559	4,742	9,301		
In Certified Houses...	...	3	6	—	—	89	103	92	109	201	—	—	—	92	109	201		
In Approved Homes	...	—	—	—	—	—	—	—	—	—	386	277	663	386	277	663		
Under Guardianship or Notified	...	1,768	2,296	59	18	11	5	1,838	2,319	4,157	119*	154*	273*	1,957	2,473	4,430		
Total	...	18,270	21,871	3,491	894	1,001	609	22,762	23,374	46,136 (a)	1,416	1,141	2,557	24,178	24,515	48,693†		

(a) Of these cases approximately 3,155 were on Licence from Certified Institutions and 92 from Guardianship.

\* Notified cases (sec. 51).

† In addition to the patients in Institutions and under Guardianship or Notified, there were on the same date 37,817 patients (20,223 males, 17,594 females) under Statutory Supervision (sec. 30 (b)).

The number of cases sent to these institutions by Poor Law Authorities showed a decrease of 67 as compared with the numbers so returned last year. There has been a gradual decline in these cases, which ten years ago numbered 876.

The proportion of patients in Certified Institutions who are received under the provisions of the Mental Deficiency Acts, as compared with the proportion received outside the Acts, is steadily increasing, as is shown by the following table :—

Year. (1st Jan.)	Under the provisions of the Acts.	Outside the Acts.	Total.	Percentage under the Acts.
1918	4,242	2,147	6,389	66·4
1923	7,891	2,126	10,017	78·8
1928	12,197	1,902	14,099	86·5
1933	20,355	2,138	22,493	90·5
1934	22,505	1,989	24,494	91·9
1935	24,898	1,884	26,782	93·0
1936	27,111	1,822	28,933	93·7
1937	29,082	1,716	30,798	94·4
1938	31,032	1,621	32,653	95·0

## 2. ASCERTAINMENT.

The annual returns received show that on 1st January, 1938, the number of defectives reported to Local Authorities, whether subject to be dealt with or not, was 121,977, an increase of 4,830 over last year's figures and a proportion to the population of 2·99 per 1,000 as against 2·88 a year ago.

In 1928 the comparable figure was 61,522 or 1·57 per 1,000, and in the intervening 10 years a continuous increase has taken place in the numbers reported.

In addition, 3,382 feeble-minded children between the age of 14 and 16, for whom the Mental Deficiency Committee has no immediate liability, have been informally notified for after care on leaving school. If the number of mentally defective children in this category is added to the number given above, the total reported to Local Authorities is 125,359\* or 3·07 per 1,000.

On 1st January, 1938, the number of mental defectives ascertained to be subject to be dealt with was 92,449 (2·26 per 1,000 of the population as against 2·18 last year).

It is of interest to note that in 16 areas the number of defectives known to Local Authorities for whom they are or may at any time

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\* This is the total number of defectives known to Local Authorities as distinguished from those who are subject to be dealt with, and is not comparable with the figures given on p. 39.



become responsible now equals or exceeds the estimate made by the Wood Committee (*i.e.*, 4·52 per 1,000 of the population). These figures are shown in the Table given on page 45 compiled from the returns received this year from Local Authorities.

The total increase, if analysed, is again this year found to be mainly accounted for by small increases shown by the majority of Local Authorities, but in the following areas last year's figures have risen by 0·40 or more per 1,000 of the population.

Canterbury C.B.	...	...	...	...	1·02
Southampton C.	...	...	...	...	0·70
York C.B.	...	...	...	...	0·59
Grimsby C.B.	...	...	...	...	0·58
Oxford C.	...	...	...	...	0·55
Northampton C.B.	...	...	...	...	0·54
Rutland C.	...	...	...	...	0·52
Exeter C.B.	...	...	...	...	0·51
Southampton C.B.	...	...	...	...	0·47
Huntingdon C.	...	...	...	...	0·44
Glamorgan C.	...	...	...	...	0·40

The number of children notified by Local Education Authorities during the year was 3,910, a decrease of 81 on the number notified during 1936.

<i>Year.</i>	<i>Number of Notifications.</i>					
1931	...	...	...	...	...	3,780
1932	...	...	...	...	...	3,777
1933	...	...	...	...	...	3,543
1934	...	...	...	...	...	3,488
1935	...	...	...	...	...	3,533
1936	...	...	...	...	...	3,991
1937	...	...	...	...	...	3,910

Of the 3,910 cases notified during 1937 by Local Education Authorities, 494 have been placed in Institutions, 45 under Guardianship, 2,688 under Statutory Supervision and 30 in "places of safety," while 65 died or were removed from the area of the Local Authority. No action has been taken in 588 cases (15 per cent.).

The decrease in the numbers notified this year under Section 2 (2) of the Mental Deficiency Act, 1913, again raises the question why fuller advantage is not taken of this section which makes provision for after care at a time when defectives most need it and are best able to benefit from it. Under the present state of the law facilities for notification are admittedly lacking, especially in rural districts where there are no special schools but much more could even now be done on the lines indicated in the Board of Education memorandum No. 151 to ensure the recognition of mental defectives during school age and to make their needs on leaving school known to the Mental Deficiency Committee.

The present lack of uniformity of method is shown by the variation in the proportion of children notified by Local Education Authorities in different areas.

The following table shows the number of children notified under Section 2 (2) of the Mental Deficiency Act, 1913, in eight of the most populous areas :—

—	Lancs. M.H. Board.	Lon- don.	Middle- sex.	Yorks., W.R.	Essex.	Kent.	Surrey.	Bir- ming- ham.
Population (in thou- sands) ... ..	5,163	4,141	1,940	1,525	1,344	1,337	1,127	1,019
Sent to Institutions or placed in “places of safety” ... ..	33	74	18	3	27	8	6	41
Placed under Guard- ianship or under Statutory Super- vision ... ..	241	473	128	47	95	53	26	126
Died or removed from area ... ..	5	13	2	5	7	3	4	3
Action not yet taken ... ..	210	84	12	6	4	20	8	60
Total notified ... ..	489	644	160	61	133	84	44	230
Ratio per 10,000 of population ... ..	0·95	1·56	0·82	0·40	0·99	0·63	0·39	2·26

In the following County Boroughs from 2·00 to 3·20 per 10,000 of the population were notified during the year :—

Plymouth	...	...	...	...	...	3·20
Ipswich ...	...	...	...	...	...	2·70
Leeds ...	...	...	...	...	...	2·69
Nottingham	...	...	...	...	...	2·43
Birmingham	...	...	...	...	...	2·26
Walsall ...	...	...	...	...	...	2·07
Oxford ...	...	...	...	...	...	2·00

In twelve other County Boroughs, on the other hand, only 0·50 and under have been notified :—

Wakefield	...	...	...	...	...	0·50
Hastings	...	...	...	...	...	0·47
Doncaster	...	...	...	...	...	0·42
Canterbury	...	...	...	...	...	0·40
Newport	...	...	...	...	...	0·31
Bournemouth	...	...	...	...	...	0·25
West Bromwich	...	...	...	...	...	0·24
Chester ...	...	...	...	...	...	0·22
Burton-on-Trent	...	...	...	...	...	0·21
Rotherham	...	...	...	...	...	0·13
Merthyr Tydfil	...	...	...	...	...	Nil
West Hartlepool	...	...	...	...	...	Nil

In the rural areas the difference is equally marked although the upper range of figures is lower than in the towns. The variation is, therefore, not only as between urban and rural areas and must,



in the main, be attributed to differing standards of activity and of co-operation between Education Authorities and Mental Deficiency Authorities.

The need for closer co-operation is very great. Feeble-minded children on leaving school are often unfit to compete with their contemporaries and liable to fall into various forms of trouble, some of them expensive to the rate-payer, from which they might have been saved by timely help. In our view this is by far the most urgent question in relation to ascertainment which Local Authorities have now to face.

On the 1st January, 1938, the total number of mental defectives, "subject to be dealt with" and in receipt of poor relief was 8,804 as compared with 9,494 last year. The following table shows the changes that have taken place amongst this group during the past five years:—

			<i>Indoor Relief.</i>	<i>Outdoor Relief.</i>	<i>Total.</i>
1933	...	...	7,301	3,988	11,289
1934	...	...	7,082	4,018	11,100
1935	...	...	7,541	4,173	11,714
1936	...	...	5,493	3,781	9,274
1937	...	...	5,598	3,896	9,494
1938	...	...	5,024	3,780	8,804

The decrease in the number of mental defectives in receipt of poor relief results from the gradual transfer of mental defectives now in Public Assistance Institutions to Colonies and to the adoption in most areas of the policy of providing financial help for defectives through the Mental Deficiency Committee rather than by giving out-relief. This is a policy which carries out the principles embodied in the Local Government Act and should, in the Board's view, be generally adopted throughout the country.

The following table shows the proportion, per 1,000 of the population of the area, of defectives reported to Local Authorities; of defectives ascertained to be subject to be dealt with; of defectives receiving institutional care; and of defectives placed under some form of statutory care in the community (i.e., licence, guardianship, statutory supervision). It will be noticed that the figures in the third and fourth columns, showing the action taken, in only a few cases amount to the figure in the column showing the number ascertained; the reasons for this are that numbers varying in different areas have been ascertained but are still in receipt of poor relief and that, in some areas, large numbers have been ascertained and no action has been taken.

These figures will be of use to Local Authorities as an indication of what their institutional needs are likely to be and also of the extent to which community care is being made use of as a statutory measure. This is referred to further in the sections on Accommodation and Community Care. Here, in reference to Ascertainment, we would again ask Local Authorities to consider the figures given

in the different columns of the Table under discussion. Where the sum of the figures in the third and fourth columns falls far short of the figure in the second, i.e., the numbers subject to be dealt with, the conclusion can only be that the provision made in that area is far from complete. Though ascertainment is beyond doubt the first step it may be a useless one unless followed by the provision of care and training, both in colonies and in the community.

				<i>Reported.</i>	<i>Ascertained to be subject to be dealt with.</i>	<i>In Institu- tions.</i>	<i>In Com- munity Care.</i>
Cardigan C.	...	...	...	7·69	1·27	0·19	0·06
Walsall C.B.	...	...	...	7·09	4·77	2·39	1·95
Rutland C.	...	...	...	6·40	6·40	1·81	4·36
Devon C.	...	...	...	6·14	2·76	1·43	0·67
Salop C. ...	...	...	...	5·73	2·57	0·83	1·12
Suffolk E. & W.	...	...	...	5·67	3·06	1·27	1·06
Portsmouth C.B.	...	...	...	5·33	2·32	0·71	1·29
Nottingham C.B.	...	...	...	5·19	5·19	1·18	3·67
Plymouth C.B. ...	...	...	...	5·04	3·81	1·25	2·46
Dorset C.	...	...	...	5·04	2·81	1·18	1·32
Somerset C.	...	...	...	4·96	3·07	1·57	1·14
Wiltshire C.	...	...	...	4·83	3·65	1·42	1·81
Darlington C.B.	...	...	...	4·73	2·04	0·77	0·77
Essex C.	...	...	...	4·63	1·90	0·61	0·94
Oxford C.B.	...	...	...	4·56	3·38	1·53	1·74
Berkshire C.	...	...	...	4·52	2·03	1·11	0·59
Oxford C.	...	...	...	4·47	2·01	0·46	0·84
Leeds C.B.	...	...	...	4·43	3·72	1·30	2·32
Birmingham C.B.	...	...	...	4·36	4·35	1·77	2·36
Sunderland C.B.	...	...	...	4·31	3·44	0·72	1·67
Grimsby C.B. ...	...	...	...	4·23	2·48	0·83	1·02
Canterbury C.B.	...	...	...	4·17	2·50	1·11	0·71
Ipswich C.B. ...	...	...	...	4·14	3·84	1·51	2·25
Burton-on-Trent C.B.	...	...	...	4·11	1·87	0·55	0·80
Rotherham C.B.	...	...	...	4·11	1·99	0·79	0·43
West Bromwich C.B.	...	...	...	4·08	2·39	1·81	0·58
Bristol C.B.	...	...	...	4·07	4·07	1·13	2·35
York C.B.	...	...	...	3·99	2·67	1·40	1·26
Cambridge C.	...	...	...	3·98	2·12	0·87	0·89
Barnsley C.B.	...	...	...	3·95	2·56	0·52	1·44
Hertford C.	...	...	...	3·84	3·17	1·00	0·80
Southampton C.B.	...	...	...	3·84	2·27	0·89	1·32
Swansea C.B.	...	...	...	3·81	2·15	0·71	1·43
Birkenhead C.B.	...	...	...	3·79	1·80	0·45	1·15
Worcester C.B. ...	...	...	...	3·75	2·11	0·78	1·01
Reading C.B.	...	...	...	3·74	2·71	0·76	1·81
Leicester C.	...	...	...	3·67	2·42	0·69	0·47
Southampton C.	...	...	...	3·66	2·36	1·01	1·17
Radnor C.	...	...	...	3·57	3·43	0·65	2·48
Northampton C.B.	...	...	...	3·52	1·46	0·29	1·10
Exeter C.B.	...	...	...	3·51	2·35	1·37	0·66
Cumberland, Westmorland and Carlisle C.B. ...	...	...	...	3·44	2·55	0·96	1·50
Smethwick C.B.	...	...	...	3·43	3·25	0·77	2·31



			<i>Reported.</i>	<i>Ascertained to be subject to be dealt with.</i>	<i>In Institu- tions.</i>	<i>In Com- munity Care.</i>
Bradford C.B. ...	...	...	3.37	3.00	1.06	1.93
Stafford C. ...	...	...	3.36	1.44	0.52	0.56
Isle of Wight C. ...	...	...	3.35	3.04	0.65	1.79
Newport C.B. ...	...	...	3.34	1.39	0.36	0.75
Derby C.B. ...	...	...	3.32	1.67	0.47	0.98
London C. ...	...	...	3.32	2.75	1.57	1.15
Merioneth C. ...	...	...	3.24	2.51	0.66	—
Sheffield C.B. ...	...	...	3.19	2.57	0.88	1.66
Parts of Lindsey C. ...	...	...	3.15	2.35	0.85	1.26
West Ham C.B. ...	...	...	3.13	3.08	0.92	2.06
Norfolk C. ...	...	...	3.12	2.80	1.37	0.94
Tynemouth C.B. ...	...	...	3.10	2.77	1.11	1.33
Wolverhampton C.B. ...	...	...	3.10	2.32	0.98	1.26
Parts of Kesteven C. ...	...	...	3.09	2.07	0.82	0.88
Anglesey C. ...	...	...	3.07	3.07	0.42	1.44
Kingston-upon-Hull C.B. ...	...	...	3.04	2.72	0.83	1.56
Soke of Peterborough C. ...	...	...	3.02	3.02	1.01	1.94
Monmouth C. ...	...	...	2.99	2.60	0.56	1.99
Nottingham C. ...	...	...	2.98	1.52	0.46	0.73
Warwick C. ...	...	...	2.97	2.06	1.17	0.82
Derby C. ...	...	...	2.95	1.73	0.61	0.96
Denbigh C. ...	...	...	2.90	2.88	0.73	0.90
Middlesbrough C.B. ...	...	...	2.89	2.89	0.81	1.66
Cardiff C.B. ...	...	...	2.88	2.29	0.85	1.38
Lancashire Mental Hospitals						
Board ...	...	...	2.81	1.94	0.73	0.94
Parts of Holland C. ...	...	...	2.81	2.56	0.68	1.54
Hereford C. ...	...	...	2.80	2.80	0.58	2.04
East Ham C.B. ...	...	...	2.77	2.35	0.75	1.45
Bath C.B. ...	...	...	2.76	2.20	0.91	1.22
Dudley C.B. ...	...	...	2.74	2.21	0.59	1.29
Isle of Ely C. ...	...	...	2.73	1.31	0.58	0.66
Great Yarmouth C.B. ...	...	...	2.72	1.50	0.73	0.40
Pembroke C. ...	...	...	2.68	1.41	0.51	0.06
Norwich C.B. ...	...	...	2.67	2.63	1.35	1.16
Dewsbury C.B. ...	...	...	2.67	1.97	0.77	1.20
Lincoln C.B. ...	...	...	2.66	2.09	0.79	0.75
Gloucester C. and Gloucester C.B. ...	...	...	2.65	1.89	0.65	0.71
Durham C. ...	...	...	2.62	2.62	0.44	1.60
Leicester C.B. ...	...	...	2.62	2.16	1.21	0.94
Montgomery C. ...	...	...	2.61	2.61	0.89	1.72
Buckingham C. ...	...	...	2.53	2.00	1.04	0.84
Eastbourne C.B. ...	...	...	2.53	2.53	0.75	1.76
Northumberland C. ...	...	...	2.52	2.31	0.70	1.40
Newcastle-on-Tyne C.B. ...	...	...	2.51	2.48	1.36	1.09
Gateshead C.B. ...	...	...	2.49	2.20	0.79	1.18
Yorks, North Riding ...	...	...	2.42	1.38	0.57	0.51
Cornwall C. ...	...	...	2.40	2.34	0.72	1.14
Croydon C.B. ...	...	...	2.40	2.29	0.58	1.56
East Sussex C. ...	...	...	2.38	2.17	0.60	1.40
Glamorgan C. ...	...	...	2.33	2.33	0.62	1.04
Caernarvon C. ...	...	...	2.28	1.55	0.37	0.28
Worcester C. ...	...	...	2.27	1.29	0.62	0.58
Southend-on-Sea C.B. ...	...	...	2.26	1.71	0.55	0.93

			Reported.	Ascertained to be subject to be dealt with.	In Institu- tions.	In Com- munity Care.
Yorks, East Riding	...	...	2.25	1.63	0.86	0.70
Brecknock C.	...	...	2.22	2.22	0.37	0.97
Hastings C.B.	...	...	2.21	1.98	0.73	1.18
Chester C.B.	...	...	2.17	2.13	1.02	1.06
Kent C.	...	...	2.16	1.55	0.67	0.60
Coventry C.B.	...	...	2.11	2.08	0.42	1.30
Wakefield C.B.	...	...	2.09	1.29	0.55	0.49
Northampton C.	...	...	2.05	1.27	0.35	0.60
Flint C.	...	...	2.04	2.04	0.53	1.35
Chester C.	...	...	1.94	1.90	0.36	1.18
Middlesex C.	...	...	1.93	1.56	0.83	0.69
Yorks, West Riding	...	...	1.88	1.79	0.62	0.92
Carmarthen C.	...	...	1.87	1.87	0.28	0.03
Wallasey C.B.	...	...	1.83	1.07	0.72	0.35
Brighton C.B.	...	...	1.80	1.79	0.53	1.24
Halifax C.B.	...	...	1.80	1.80	0.88	0.80
Merthyr Tydfil C.B.	...	...	1.80	0.70	0.32	0.02
Surrey C.	...	...	1.78	1.20	0.58	0.43
Doncaster C.B.	...	...	1.74	1.74	0.72	0.95
Huddersfield C.B.	...	...	1.65	1.50	0.65	0.68
Huntingdon C.	...	...	1.62	1.59	0.43	0.70
West Sussex C.	...	...	1.57	1.56	0.48	1.08
Bedford C.	...	...	1.48	1.35	0.48	0.59
Stoke-on-Trent C.B.	...	...	1.41	1.19	0.47	0.72
South Shields C.B.	...	...	1.33	1.33	0.79	0.52
Bournemouth C.B.	...	...	1.16	1.09	0.47	0.62
West Hartlepool C.B.	...	...	1.09	1.09	0.55	0.28

## 3. ACCOMMODATION.

## I.—Beds provided.

The present number of beds provided under Sections 35, 36, 37, 49 and 50 of the Mental Deficiency Act, 1913, is as follows:—

	Number of beds.
State Institution (Section 35)	1,451
Certified Institutions provided by Local Authorities (Section 36)	20,722
Certified Institutions provided by other bodies (Section 36)	9,800
Public Assistance Institutions and Public Health General Hospitals (Section 37)	10,530
Certified Houses (Section 49)	224
Approved Homes (Section 50)	825
	<hr/> 43,552 <hr/>

This represents a total net increase during the year 1937 of 1,831 beds; 1,403 in Certified Institutions provided by Local Authorities (Section 36); 129 in Certified Institutions provided by



other bodies (Section 36); 266 in Public Assistance Institutions, and Public Health General Hospitals (Section 37); and 37 in Approved Homes (Section 50). There was a decrease of 4 beds in Certified Houses (Section 49).

The detailed position with regard to accommodation which is set out below shows the number of Local Authorities which have now made or are making provision of their own; the authorities which are meeting their needs by contracting for beds in Institutions provided by other bodies; the number of beds approved under Section 37 of the Mental Deficiency Act, 1913, in Public Assistance Institutions or in Public Health General Hospitals; further approved building schemes; the position as regards Hostels; and other matters relating to the building and provision of Colonies.

In connection with this section it may also be of interest to those authorities which have the ultimate institutional needs of the area under consideration to refer to the Table given on p. 45 showing the numbers of defectives per 1,000 of the population now actually maintained in Certified Institutions by Local Authorities. On the evidence of the Wood Committee the Board have suggested 2 per 1,000 as a rough estimate of the number of defectives likely to need institutional care. It will be seen that 10 authorities, all with an ascertainment of 3·32 and over, have now reached figures ranging from 1·42 to 2·39 per 1,000 in institutions. We doubt whether even so, with two or three possible exceptions, these authorities would say that they yet had beds sufficient to meet their whole needs.

						<i>In certified institutions (per 1,000).</i>
Walsall C.B.	...	...	...	...	...	2·39
Rutland C.	...	...	...	...	...	1·81
West Bromwich C.B.	...	...	...	...	...	1·81
Birmingham C.B.	...	...	...	...	...	1·77
London C.	...	...	...	...	...	1·57
Somerset C.	...	...	...	...	...	1·57
Oxford C.B.	...	...	...	...	...	1·53
Ipswich C.B.	...	...	...	...	...	1·51
Devon C.	...	...	...	...	...	1·43
Wiltshire C.	...	...	...	...	...	1·42

(i) *Beds provided by Local Authorities (Section 36).*

Eighty-one Local Authorities had, on 1st January, 1938, provided accommodation under Section 30(c) of the Act of 1913, either alone or in combination with other Local Authorities. The 1,403 beds added during the year are mainly to be accounted for by developments at Coleshill Hall—Marston Green Division (493 beds); Great Barr Park Colony (300 beds); Holbeach (167 beds); Leybourne Grange (142 beds); Brandesburton Hall (139 beds); Stretton Hall (100 beds).

The total number of beds in Institutions thus provided is now 20,722 :—

	<i>Beds.</i>		<i>Beds.</i>
Bedfordshire and Northamptonshire Joint Board (Bedford C., Northampton C. and Northampton C.B.)		Hampshire Mental Health Institutions Joint Committee (Southampton C., Bournemouth C.B. and Southampton C.B.)	
Bromham House ... ..	24	Coldeast Colony ... ..	500
Birmingham C.B.		Tatchbury Mount ... ..	137
Coleshill Hall with ancillary premises (Marston Green Division) ... ..	913	Herts C.	
Monyhull Colony ... ..	1,243	Cell Barnes Colony ... ..	600
Bradford C.B.		Ipswich C.B.	
Westwood Colony, with ancillary premises (Ashfield) ... ..	290	Handford Home ... ..	22
Brighton C.B.		Kent C.	
Laughton Lodge ... ..	34	Leybourne Grange ... ..	442
Bristol C.B.		West View, Tenterden ... ..	180
Hortham Colony ... ..	608	Kingston-upon-Hull C.B.	
Buckingham C.		Tilworth Grange ... ..	150
Manor House, Aylesbury	99	Lancashire Mental Hospitals Board	
Bucks, Oxon and Reading Joint Board (Bucks C., Oxford C., Oxford C.B. and Reading C.B.)		Brockhall ... ..	772
Borocourt ... ..	207	Calderstones ... ..	2,378
Cheshire Joint Board (Chester C. and Chester, Birkenhead and Wallasey C.B.s)		Leeds C.B.	
Cranage Hall ... ..	318	Meanwood Park Colony, with ancillary premises (Armley Grange and Kepstorn) ... ..	490
Cornwall C.		Leicester C.B.	
St. Columb Major ... ..	111	Leicester Frith ... ..	337
Cumberland, Westmorland and Carlisle Joint Committee		Leicestershire and Rutland Joint Board	
Dovenby Hall Colony ... ..	185	Stretton Hall ... ..	160
Denbigh C.		Lincolnshire Joint Board (Holland, Kesteven and Lindsey Cs. and Grimsby and Lincoln C.Bs.)	
Coed Du Hall ... ..	72	Harmston Hall Colony ... ..	250
Derby C.		Holbeach ... ..	167
Makeney House ... ..	80	London C.	
Derby C.B.		Brunswick House ... ..	68
Thornhill ... ..	39	Farmfield ... ..	161
Devon C.		Manor ... ..	1,292
Box House, Axminster ... ..	109	South Side Home ... ..	80
Stoke Lyne ... ..	53	Middlesex C.	
Western Lodge, Crediton	106	Middlesex Colony ... ..	854
Flintshire C.		Bramley House ... ..	66
Broughton ... ..	56	Craufurd Home ... ..	116
Glamorgan C.		Newcastle-on-Tyne C.B.	
Drymma Hall ... ..	79	Shotley Bridge Colony ... ..	473
Hensol Castle ... ..	460	Norfolk C.	
		Little Plumstead Hall, with ancillary premises (Heckingham) ... ..	501



	<i>Beds.</i>		<i>Beds.</i>
North-Eastern County Boroughs Joint Board (Darlington, Middlesbrough, South Shields, Sunderland, Tynemouth and West Hartlepool C.Bs.)		Warwick C.	
Prudhoe Hall Colony ...	625	Weston Colony ...	138
Northumberland C.		West Ham C.B.	
Cowpen Hall ...	42	South Ockendon Colony ...	134
Greenholme Institution, Haltwhistle ...	51	West Wales Joint Board (Cardigan, Carmarthen, Pembroke, Brecon and Radnor Cs.)	
Rothbury ...	54	Pantglas Hall ...	117
Norwich C.B.		Wiltshire C.	
Eaton Grange ...	37	Pewsey Colony ...	201
Nottingham C.B.		Purton ...	48
Aston Hall ...	332	Wilton ...	65
Sheffield C.B.		Yorkshire :—	
Cliffe House ...	29	East Riding and York Joint Board	
Hollow Meadows ...	58	Brandesburton Hall ...	260
Wales Court ...	50	Mid-Yorkshire Joint Board (Leeds, York, Halifax and Kingston-upon-Hull C.Bs.)	
Somerset C.		Mid-Yorks Institution ...	214
Sandhill Park, with ancillary premises (Cambridge House, West End House, and Yatton Hall) ...	486	North Riding C.	
Stoke-on-Trent C.B.		Claypenny Colony ...	90
Stallington Hall ...	77	South-West Yorkshire Joint Board (Barnsley, Dewsbury, Doncaster, Halifax, Huddersfield, Rotherham and Wakefield C.Bs.)	
Surrey C.		St. Catherine's Colony ...	300
Botleys Park, with ancillary premises (Murray House) ...	409	West Riding C.	
Clerk's Croft ...	168	Oulton Hall ...	264
Swansea C.B.		Rawcliffe Hall ...	121
Llwyn Eryr Training Home	27	The Mansion, Kirkburton	60
Walsall and West Bromwich Joint Board			
Great Barr Park Colony ...	983		20,722

(ii) *Beds provided by other bodies (Section 36).*

(a) The Local Authorities named below have made contractual arrangements for the reservation of beds in the following Certified Institutions :—

Derby C.	...	...	...	{ Stoke Park Colony. Whittington Hall.
Gloucestershire (County & City) Joint Committee	...	...	...	{ Stoke Park Colony. Brentry Colony.
Essex C.	...	...	...	{ Royal Eastern Counties Institution.
Southend C.B.	...	...	...	
East and West Suffolk Joint Committee	...	...	...	
Ipswich C.B.	...	...	...	
Cambridgeshire C.	...	...	...	

Devon C.	...	...	...	} Royal Western Counties Institution.
Exeter C.B.	...	...	...	
Plymouth C.B.	...	...	...	
Dorset C.	...	...	...	
Somerset C.	...	...	...	} Hortham Colony (Bristol C.B.).
Bath C.B.	...	...	...	
Dorset C.	...	...	...	} Little Plumstead Hall (Norfolk C.).
Great Yarmouth C.B.	...	...	...	
Norwich C.B.	...	...	...	{ Shotley Bridge Colony (Newcastle-on-Tyne C.B.).
Gateshead C.B.	...	...	...	
Cardiff C.B.	...	...	...	} Hensol Castle (Glamorgan C.).
Merthyr Tydfil C.B.	...	...	...	
Swansea C.B.	...	...	...	
East Ham C.B.	...	...	...	South Ockendon Colony (West Ham C.B.).
Croydon C.B.	...	...	...	Botleys Park (Surrey C.).
Staffs C.	...	...	...	} Great Barr Park Colony. (Walsall and West Bromwich Joint Board.)
Coventry C.B.	...	...	...	
Derby C.	...	...	...	

(b) The total accommodation available on 1st January, 1938, in Certified Institutions (Section 36) provided by bodies other than Local Authorities was as follows :—

Stoke Park Colony	...	...	...	...	...	1,818
Royal Eastern Counties Institution	...	...	...	...	...	1,685
Royal Albert Institution	...	...	...	...	...	920
Royal Western Counties Institution	...	...	...	...	...	676
Royal Earlswood Institution	...	...	...	...	...	575
The Mary Dendy Home	...	...	...	...	...	425
Whittington Hall	...	...	...	...	...	421
Brentry Colony	...	...	...	...	...	385
Other Certified Institutions with under 200 beds	...	...	...	...	...	2,895
						<u>9,800</u>

(iii) *Beds provided in Public Assistance Institutions and Public Health General Hospitals (Section 37).*

Nearly one-half of the 10,530 beds so provided are occupied by defectives in the four big London County Council Institutions transferred from the Metropolitan Asylums Board (Darenth Park 1,899; Caterham Hospital 1,329; Leavesden Hospital, 935; Fountain Hospital 680). In addition there are 5,687 beds in other approved Public Assistance Institutions and Public Health General Hospitals.

The net increase of 266 beds shown this year in institutions approved under Section 37 is mainly accounted for by the approval of the Risbridge Public Assistance Institution (West Suffolk C.) which has been adapted for the accommodation of 201 mental defectives chargeable to the East and West Suffolk Joint Committee for the Mentally Defective and by an increase of 129 beds made available for defectives in the four institutions (London C.) transferred from the Metropolitan Asylums Board. Amongst the smaller public assistance institutions, seven have either ceased to be approved for the reception of defectives under Section 37 or their numbers have been decreased. No new approval is now



given by the Board to poor law premises unless the defectives are completely separated from the other inmates and unless the group admitted is confined to a type of patient for whose requirements it is within the capacity of the institution to provide. The mixed groups that unfortunately still exist in some public assistance institutions are being slowly absorbed as colonies develop and in the meantime the approvals are only renewed from year to year as a temporary measure.

## II.—Prospective provision.

### (i) Building schemes in progress or planned.

(a) Plans of the following schemes have received statutory approval.

	<i>Beds.</i>
Middlesex Colony (Middlesex C.) ... ..	340
School Aycliffe Colony (Durham C.) ... ..	360
Winestead Hall (Kingston-upon-Hull C.B.) ... ..	130
Bromham House (Beds. and Northants Joint Board) ... ..	260
Botley's Park (Surrey C.) ... ..	1,200
South Ockendon Colony (West Ham C.B.) ... ..	340
Northgate Colony (Northumberland C.) ... ..	300
Boreatton Park (Salop C.) ... ..	150
Royal Western Counties' Institution (Devon C., Exeter C.B., Somerset C., Dorset C. and Plymouth C.B.) ... ..	342
Westwood (Bradford C.B.) ... ..	60
Brockhall (Lancashire Mental Hospitals Board) ... ..	1,326
Claypenny Colony (Yorks N. Riding C.) ... ..	180
Balderton Hall (Notts. C.) ... ..	540
Shotley Bridge Colony (Newcastle-on-Tyne C.B.) ... ..	80
St. Catherine's (S.W. Yorks Joint Board) ... ..	200
Dovenby Hall (Cumberland, Westmorland and Carlisle Joint Committee) ... ..	150
Portsdown Colony (Portsmouth C.B.) ... ..	500
Leicester Frith (Leicester C.B.) ... ..	62
Great Barr Park Colony (Walsall and West Bromwich Joint Board) ... ..	340
Warwickshire Weston Colony (Warwickshire C.) ... ..	100
Harmston Hall Colony (Lincs Joint Board) ... ..	158
Borocourt (Bucks, Oxon and Reading Joint Board) ... ..	224
Little Plumstead Hall (Norfolk C.) ... ..	120
Laughton Lodge (Brighton C.B.) ... ..	180
Meanwood Park Colony (Leeds C.B.) ... ..	351
Stallington Hall (Stoke-on-Trent C.B.) ... ..	440
Manor (London C.) ... ..	40
Leybourne Grange (Kent C.) ... ..	1,064
Pewsey Colony (Wilts C.) ... ..	100
*Bradfield Institution (Berks C.) ... ..	85
*Easthampstead Institution (Berks C.) ... ..	194
Sandhill Park (Somerset C.) ... ..	20
†Darenth Park (London C.) ... ..	328

\* Public Assistance Institution approved under Section 37 of the Mental Deficiency Act, 1913, to be appropriated for mental deficiency purposes on completion of the adaptations.

† Institution approved under Section 37 of the Mental Deficiency Act, 1913.

(b) The following schemes have been approved in principle :—

	<i>Beds.</i>
Hensol Castle (Glamorgan C.) ... ..	220
Campsmount Colony (Yorks West Riding C.) ... ..	660
Pewsey Colony (Wiltshire C.) ... ..	100
Isle of Ely Colony (Isle of Ely C.) ... ..	100
Eaton Grange (Norwich C.B.) ... ..	20
Leicester Frith (Leicester C.B.) ... ..	60
School Aycliffe (Durham C.) ... ..	664
Calderstones (Lancashire Mental Hospitals Board) ... ..	100
Sandhill Park (Somerset C.) ... ..	101
Pantglas Hall (West Wales Joint Board) ... ..	50
Royal Western Counties Institution (Devon C., Somerset C. and Cornwall C.) ... ..	180
Burscough Colony (Lancashire Mental Hospitals Board) ... ..	2,030
Tatchbury Mount Colony (Hampshire Joint Mental Health Institutions Committee) ... ..	160
Little Plumstead Hall (Norfolk C.) ... ..	32
*Caterham Hospital (London C.) ... ..	13

(ii) The following Local Authorities have not made provision for institutional accommodation under Section 38 (1) (a) of the Act of 1913, either alone or in combination with other Local Authorities, although the majority of them have schemes under consideration :—

Anglesey C.	Isle of Wight C.
Caernarvon C.	Merioneth C.
Eastbourne C.B.	Monmouth C.
East Sussex C.	Newport C.B.
Hastings C.B.	Soke of Peterborough C.
Hereford C.	West Sussex C.
Huntingdon C.	

### III.—*Hostels.*

(i) The following Institutions function solely as hostels and receive patients, in the first instance, on licence from other Certified Institutions :—

Eagle House, Mitcham (Surrey Voluntary Association of Mental Welfare). (Women.)
Royal Fort Home, Bristol (The Committee of Management). (Women.)
Royal Hostel, Elstead (Surrey Voluntary Association for Mental Welfare). (Men).
The Old Rectory, Bath (Bath Voluntary Association for Mental Welfare). (Women).

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\* Institution approved under Section 37 of the Mental Deficiency Act, 1913.



(ii) Patients are also sent out to daily work from the following, amongst other, institutions. Those marked \* have separate hostel branches :—

- Royal Eastern Counties' Institution. (Women.)
- \*The Manor (London C.). (Men and Women.)
- \*Royal Western Counties' Institution. (Men and Women.)
- South Side Home (London C.). (Women.)
- \*Farmfield (London C.) (Men.)
- Brunswick House (London C.). (Men.)
- \*Meanwood Park Colony (Leeds C.B.). (Women.)
- \*The Hermitage. (Women.)
- \*Caterham (London C.). (Men.)
- Dungates. (Men.)
- \*Monyhull Colony (Birmingham C.B.) (Women.)
- Sandhill Park (Somerset C.). (Women.)
- Eaton Grange (Norwich C.B.). (Women.)
- Colehill Hall (Birmingham C.B.) (Men and Women.)
- Pewsey Colony (Wilts C.). (Women sent out on licence to hostel.)
- Mount Olivet. (Men.)

#### IV.—*Holiday Homes.*

In the Board's Annual Report last year, reference was made to the development of Holiday Homes for patients from Mental Deficiency Institutions and from Mental Hospitals.

The following Certified Institutions have holiday branches of their own :—Royal Eastern Counties Institution, Royal Western Counties Institution, Royal Earlswood Institution, Stoke Park Colony, Besford Court, Mutual Sanatoria. The Leeds Voluntary Mental Welfare Committee are opening a Home this year at Arnside. A large number of other Committees make some arrangement for sending groups of mental defectives away during the summer months. The Homes organised by the Central Association for Mental Welfare at Seaford, Bognor Regis, Rhyl and Redcar have facilitated such arrangements and encouraged Committees in this excellent movement with which the Board have every sympathy. It was, however, thought advisable in February, 1938, to issue a note of warning (Circular 844), to Local Authorities and to Managers of Institutions. There is some evidence that the public and the inhabitants of seaside resorts object to an invasion of patients, specially where the beaches and esplanades are small and crowded. In consideration of the public and in order to prevent a setback to the development of Holiday Homes by making them unpopular, the Board have drawn the attention of Local Authorities to these considerations and have advised that they should be borne in mind in the selection of the place to which patients are sent for holidays.

It is of special interest to note that, at the four Holiday Homes administered by the Central Association for Mental Welfare, 23 parties (3,165 bookings) were sent this year from Mental Hospitals compared with only two parties last year.

## 4. MEDICAL SUPERINTENDENTS OF CERTIFIED INSTITUTIONS.

The following is a list of Certified Institutions where whole-time resident Medical Superintendents have been appointed :—

(i) *Certified Institutions provided by Local Authorities or combinations of Local Authorities.*

Managers.	Name of Certified Institution.	Beds.	Name of Medical Superintendent.
<i>England :</i>			
Bedfordshire and Northamptonshire Jt. Board.	Bromham House	24	R. G. B. Marsh, M.R.C.S., L.R.C.P., D.P.M.
Bristol C.B.C. ...	Hortham Colony	608	J. F. Lyons, L.R.C.P., L.R.C.S., D.P.M.
Herts C.C. ...	Cell Barnes Colony	600	N. H. M. Burke, M.R.C.S., L.R.C.P., D.P.M., D.M.R.E.
Kent C.C. ...	Leybourne Grange	442	R. Fitzroy Jarrett, L.M.S.S.A., F.R.F.P.S.
London C.C. ...	The Manor ...	1,292	E. S. Litteljohn, M.R.C.S., L.R.C.P.
Middlesex C.C. ...	Middlesex Colony	854	H. E. Beasley, M.B., B.S., D.P.M.
Norfolk C.C. ...	Little Plumstead Hall.	501	J. V. Morris, M.B., B.Ch.
Somerset C.C. ...	Sandhill Park ...	486	T. A. Danby, M.B., D.P.H.
Surrey C.C. ...	Botley's Park ...	409	K. C. L. Paddle, M.C., M.R.C.S., L.R.C.P., D.P.M.
Birmingham C.B.C.	Coleshill Hall ...	913	H. Freize Stephens, M.R.C.S., L.R.C.P.
Do.	Monyhull Colony	1,243	A. M. McCutcheon, M.B., Ch.B., F.R.F.P.S.
Cheshire Jt. Bd. ...	Cranage Hall ...	318	E. A. Haslam-Fox, M.B., Ch.B., D.P.M.
Hampshire Joint Mental Health Institutions Committee.	Coldeast Colony	500	Alban Wilson, M.R.C.S., L.R.C.P., D.P.M.
Lancashire Mental Hospitals Board.	Brockhall ...	772	D. J. Rose, M.R.C.S., L.R.C.P.
Do.	Calderstones ...	2,378	G. S. Robertson, M.B., Ch.B.
Lincolnshire Jt. Bd.	Harmston Hall Colony.	417	S. J. Laverty, M.B., Ch.B., D.P.M.
Walsall and West Bromwich (Barr Colony) Jt. Bd.	Great Barr Park Colony.	983	D. M. Macmillan, M.B., Ch.B., D.P.M.
<i>Wales :</i>			
Glamorgan C.C. ...	Hensol Castle ...	460	E. Lewis, L.R.C.P., L.R.C.S., F.R.F.P.S.
Do. ...	Drymma Hall (non-resident).	79	Do.



(ii) *Certified Institutions provided by other bodies.*

Managers.	Name of Certified Institution.	Beds.	Name of Medical Superintendent.
The Incorporation of National Institutions for Persons requiring Care and Control. Committee of Management.  Do. Do.  Do.	Whittington Hall	421	F. W. Furniss, M.R.C.S. L.R.C.P.
	Royal Eastern Counties Institution.	1,685	F. D. Turner, M.B.
	Brentry Colony	385	J. J. Mason, M.B., Ch.B.
	Royal Albert Institution.	920	C. J. Henderson, M.B.
	Royal Earlswood Institution.	575	S. Langton, M.B., B.S.

(A non-resident medical superintendent has been appointed at Prudhoe Hall Colony, viz., Dr. G. McCoull; and at Stoke Park Colony, Bristol, Dr. R. J. A. Berry is non-resident Director of Medical Services.)

## 5. COMMUNITY CARE.

The following table classifies the 45,129 defectives under statutory care in the community (*i.e.*, on licence, under guardianship and under supervision) on 1st January, 1938, and shows the variations in these numbers during the past three years :—

	On 1st January.			Increase 1937-38.
	1936.	1937.	1938.	
On Licence from Institutions ...	2,437	3,023	3,155	132
Under Guardianship (Section 30 (d))	3,381	3,729	4,157	428
Under Supervision (Section 30 (b)) ...	34,840	36,307	37,817	1,510

The corresponding figures for defectives under voluntary supervision (*i.e.*, those not subject to be dealt with but for whose friendly visitation some arrangement has been made by the Local Authority) are as follows :—

	On 1st January.			Increase 1937-38.
	1936.	1937.	1938.	
Under Voluntary Supervision ...	25,691	25,048	25,370	322

The general figures relating to defectives under some form of statutory care in the community have been compiled from the returns sent in this year by Local Authorities and are given on p. 45.

The figures in the first table show a steady increase in numbers under statutory care, more marked this year in the case of defectives under guardianship than in the other groups.

The figures on p. 45 show a wide variation as can be seen from the following examples and, in spite of the slow general increase, there are still many areas in which little or no use is being made of the sections of the Act relating to community care.

Ten Local Authorities, all with an ascertainment of over 3·12 per 1,000, show in their returns that they have 2·06 per 1,000 or over, under statutory care in the community :—

Rutland C.	...	...	...	...	4·36
Nottingham C.B.	...	...	...	...	3·67
Radnor C.	...	...	...	...	2·48
Plymouth C.B.	...	...	...	...	2·46
Birmingham C.B.	...	...	...	...	2·36
Bristol C.B.	...	...	...	...	2·35
Leeds C.B.	...	...	...	...	2·32
Smethwick C.B.	...	...	...	...	2·31
Ipswich C.B.	...	...	...	...	2·25
West Ham C.B.	...	...	...	...	2·06

On the other hand 56 Local Authorities have less than 1·0 per 1,000 and, of these, 13 less than 0·50 per 1,000, under statutory care in the community.

In quoting these bare figures we realise that their significance is limited. The real test of the efficacy of community care lies in the organisation and methods of supervision employed rather than in the actual numbers placed under care. But the two aspects are part of the same main question. It is clear to the Board that, in addition to the failure on the part of many Local Authorities to take advantage of these important sections of the Act, the organisation for supervision and training has also failed to keep pace with the numbers and needs of defectives living in the community. It is because the Board believe that Mental Deficiency Committees have before them no matter of greater importance than the development of these social services that the question is discussed here in greater detail.

Since the issue of the Board's circular and memorandum on licence in May, 1937 (No. 835), prominence has been given to the whole subject of community care by the case of *Holgate v. Lancashire Mental Hospitals Board* relating to a patient who was granted licence under the Mental Deficiency Acts. In view of many enquiries and requests for guidance the Board in August, 1937, issued a circular (No. 837) to Local Authorities and to Superintendents of Institutions, containing their observations on the case



under discussion and referring again to the considerations that should be borne in mind and the steps that should be taken before sending patients out on licence. In December a further circular (No. 840) was sent to the Clerks to Visiting Committees dealing with questions of leave of absence, parole and discharge from Mental Hospitals.

Particular reference to licence is made in all these circulars and, before considering other forms of community care, it may be of use here to recapitulate the Board's view as to its main sphere of usefulness and the responsibilities accompanying it.

Licence is principally of value as a means of testing a defective's ability to live outside an Institution. This applies to defectives who, it is anticipated, may be able to earn a living and also to lower grade stabilised patients who may live harmless lives in a suitable family environment. We suggest that the first two or three years should be looked upon as a period of trial during which time every case needs constant supervision. On full information before them as to the defective's behaviour and the circumstances in which he is living Committees should periodically consider the desirability of recommending the discharge of the order, or alternatively, of transferring the case to guardianship, or of prolonging the licence in special cases where this can be shown to be advantageous to the defective.

The advantage of licence over other forms of community care during the critical years of trial lies chiefly in its elasticity and lack of formalities. However well the defective has been trained and stabilized in the Institution he must not be faced too abruptly with normal responsibilities when he goes out to take up a more independent life outside. If his environment can still for a time be adapted to his needs it may be hoped that he will himself be able in time to adapt himself to the simpler requirements of community life. But at the beginning there must be help quickly available to meet new situations that constantly arise in relation to the employer, the guardian, the family, or to the defective's own reactions to his new life. Without this help there is danger of serious and often unnecessary failure which may lead to further prolonged periods of institutional care. Licence is intended to provide this supervision and practical help for defectives on trial, and the responsibilities and power of quick action retained by the Superintendent of the Institution make it a safe and favourable form of family care during the years of transition from an institution to life in the community.

The methods of supervision employed form the basis upon which licence, as well as all other forms of community care, must stand or fall. This has in recent years become very evident in areas where little of a constructive nature is done to help defectives after they leave the Institution and where the perfunctory nature



of the supervision and reports gives little guidance to the Superintendent in carrying out his responsibilities. Such lack of organisation often results in ill-considered action and brings undeserved discredit upon the system of licence. In the absence of full information a defective may be detained under order for long after he has shown himself able to conform to ordinary social requirements; he may on the other hand be left to commit anti-social acts in the community when closer observation would have detected early symptoms of trouble demanding recall to the Institution; or he may be injudiciously discharged whilst still in need of the care and control afforded by the Act. The standard of supervision and of consideration given to defectives during their trial period clearly needs to be raised if licence is to fill the high place amongst methods of care it already holds in some areas.

Numerically, however, defectives on licence from Certified Institutions form a small proportion of the whole number under community care. Better ascertainment is constantly increasing the already large numbers under supervision and at the same time throwing light on the practical facilities required to make supervision effective. The modern tendency in social work to encourage supervision and after-care and to make family life, rather than an institution, the background for any treatment that may be required (shown in the Children and Young Persons Act, 1933) is also making itself felt in mental deficiency work and is bound to make heavier demands on social services. It is clear, therefore, that the social services must be so organised and developed as to keep pace with the increasing number and needs of defectives under care in the community.

As already stated the number of defectives on licence, under guardianship and under statutory supervision now amounts to 45,129 or 36·0 per cent. of the whole number of known defectives. If to these are added the numbers under "voluntary supervision" (not at present subject to be dealt with but for whom the local authority may subsequently become liable), the number reaches 70,499, or 56·2 per cent. of the whole. The ascertainment, care and training of defectives in the community are the responsibility of all Mental Deficiency Committees. Whether these duties are carried out by the Local Authority's own officers or are delegated to local Associations for Mental Welfare is a matter for each Local Authority to decide, but in considering what methods should be employed and what expenditure incurred the following are in the Board's view necessary considerations.

(1) *Supervision* should include facilities for :

(a) visitation of all patients under community care by persons trained to observe and qualified to give advice to defectives and guardians.

(b) medical visitation of patients under community care by medical officers with experience of mental defect.



- (c) choice of guardians and licensees.
- (d) training of defectives both in occupation and industrial centres and in their own homes.
- (e) co-operation with other health services.

## (2) *Staffing.*

(a) The staff employed should be numerically sufficient to visit at such intervals as may be necessary for the above purposes and for purposes of ascertainment.

(b) Officers trained in mental deficiency work should be employed.

(c) The training of defectives in Centres or at home requires teachers with experience and knowledge of training methods.

The examples that follow show the methods employed in areas where licence and other forms of community care have become a fundamental part of the mental health services.

### (1) *Royal Eastern Counties Institution and the methods employed by the East and West Suffolk Joint Committee.*

The Medical Superintendent in the Annual Report of the Royal Eastern Counties Institution, 1937, gives the full figures and particulars of all patients on licence during the year. Out of 1,891 on the books on January 1st, 1938, 187 were on licence, cared for in the following ways :—

In care of friends working for wages	...	...	...	...	50
At work away from home in living-in service	...	...	...	...	32
Working at home or with foster parents	...	...	...	...	59
Not able to work, but living with parents or foster parents					8
In the simpler type of Institution	...	...	...	...	38
					<hr/>
					187
					<hr/>

Dr. Turner refers to the number of medium grade patients boarded out with foster parents as well as to the wage earners who have been out on licence for a number of years. He goes on to show that as many as 82, or 44 per cent., of those on licence are earning their living and says :—

“Eight who had been on licence for several years earned their discharge, the most satisfactory ending possible, because they have proved that defectives after training and stabilising in an institution, can safely return to the world. They have proved, first by good behaviour in the institution and then by earning their living in the outside world, under conditions which gradually allow more liberty and fewer restrictions, that they can make good.”

Seventy-four patients were returned from licence during the year and the reasons given for recall, which was sometimes only temporary, show how supervision can help patients on licence and prevent a first failure on trial from being a fatal one.

The East and West Suffolk Joint Committee in reporting on the methods employed in the supervision of patients sent out on licence classified them under three heads (1) patients returned to the care of relatives ; (2) patients placed out with foster parents ; (3) patients sent out on trial to living-in service.



In the first two groups the selection of patients for community care is made in consultation between the Medical Superintendent and the Local Authority in the light of full information about the patient's history and progress and the home conditions. Supervision of these in the County of Suffolk is undertaken by the Mental Welfare Association; quarterly or more frequent visits are paid and in addition the Medical Superintendent visits each patient yearly; 22 of these patients who are not earning, but who are able to benefit from home training, either attend a Day Centre or are given some training at home.

Patients in the third group are sent out to work on trial in situations within reach of the Institution. In their case supervision and the social work in connection with the selection and visitation of the employers are undertaken by the Medical Superintendent and by the Matrons. The girls at first return twice weekly to the Hostel Branch in their free time, but by degrees they are allowed more freedom both as regards their leisure and the handling of their wages. They see the Matron regularly at the Hostel Branch and also the Medical Superintendent from time to time.

(2) *Royal Western Counties' Institution and methods employed in Devon.*

Amongst 887 patients on the books of the Royal Western Counties Institution on 31st March, 1937, 147 were on licence. They are classified as follows :—

	M.	F.	Total.
In employment, earning wages—			
In living-in service     ...     ...     ...	43	30	73
At home     ...     ...     ...	20	4	24
In employment, not earning—			
In living-in service     ...     ...     ...	19	5	24
At home     ...     ...     ...	9	11	20
Unable to work—			
At home or with foster parents or relatives...	3	0	3
In other institutions     ...     ...     ...	0	3	3
	—	—	—
	94	53	147
	—	—	—

During the year 1937 a total of 68 were granted licence, 48 were recalled to the institution and 8 patients (6 men and 2 women) were discharged after periods of licence.

At the end of the year 1937 there were 19 men and 35 women resident in the three hostel branches of the institution.

In the annual report the advantages of hostel treatment as a step preceding licence is stressed :—

“ Seeking as we do to achieve constructive results with patients who are sent to us for training, the usefulness of the hostel is amply demonstrated by reason of its succeeding where the central Institution might fail. It gives an outlet which makes for contentment, provides good training and affords patients opportunities of proving their abilities in order that eventually they may return to community life. The selection of patients for hostel



treatment is made in no perfunctory manner. It is preceded by a period of careful study, training and observation during which we learn the patient's aptitudes, needs and aspirations. Possibly a patient will return to the central Institution several times for further training, but this can be considered part of the adjustment process. A patient is not looked upon as a failure on this account and ultimate success may turn upon some unforeseen factor such as finding an employer who strikes the right chord and brings out all that is best in the patient."

The supervision of defectives under community care in Devon has been delegated by the Local Authority to the Association for Mental Welfare under whose auspices a guardianship scheme was drawn up in 1926. Under that scheme mentally defective persons of both sexes are placed out in situations under the supervision of a specially appointed guardianship officer. It is of interest to note that a distinction is drawn between patients who are placed on licence with employers or foster parents under the care of the guardianship officer and others who are sent back to the care of relatives or friends under the supervision of the general staff of the Association. In Devon, where the numbers dealt with are large, there appear to be advantages in appointing a special officer to find guardians and to supervise patients on licence and under guardianship away from home.

In June, 1938, there were 147 cases under the guardianship scheme, 103 on licence, 28 under guardianship and 16 under voluntary supervision. For the care of these cases, one whole-time guardianship officer was employed and clerical help in the office was available, including the time of a shorthand clerk for two days weekly. The whole scheme is under the direction of the Organising Secretary of the Association. It is considered by the Association that desirable developments such as the better organisation of clubs and the placing out of more patients, especially patients of a rather lower grade in the homes of foster parents, could be carried out if more workers were available.

The selection of patients to be sent out on licence from the Royal Western Counties Institution is made by the Superintendent as the result of careful observation and usually after a period on trial in day service from the Institution or from one of the hostels. Full particulars are sent to the guardianship officer including suggestions as to the nature of the situation in which the patient should be placed. The guardianship officer then selects an employer or foster parent and reports on a prescribed form to the Superintendent and to the Local Authority, both of whom must approve of the situation proposed before arrangements are made for the patient's transfer.

To a large extent patients are placed out in geographical groups and large groups can without difficulty be managed at some distance from the centre. In one area 42 miles away from the main office in Exeter, there are 30 patients. The other groups vary from 4 to 27 patients.



The routine visits to patients on licence are paid not less than once in three months, but in actual practice emergency visits including visits in the case of sickness, accident, difficulties with employers, attendance at out-patient clinics, dentists, shopping expeditions, etc., take up much of the officer's time. A social club is also organised for service girls which gives opportunities for more frequent contact and better supervision.

All cases chargeable to the Devon County Council are medically inspected every three months by a local practitioner. Seventy-three out of the 103 patients on licence are panel patients.

It will be seen from what has been said above that very close co-operation is maintained between the Guardianship Committee and the Royal Western Counties Institution. The Superintendent is a member of the Committee and the guardianship officer works closely with the Matron of the main Institution and of the branch hostels where the girls on licence spend much of their leisure. There is also co-operation with other social agencies such as the Young Men's Christian Association and welfare workers whose help in supervising patients is sometimes of value.

(3) *The North-Eastern Council for Mental Welfare*, initiated two years ago by the Central Association for Mental Welfare, report that the following County and County Borough Councils are now participating in the scheme :—Durham C., Gateshead C.B., Middlesbrough C.B., Newcastle-upon-Tyne C.B., South Shields C.B., Sunderland C.B., Tynemouth C.B., West Hartlepool C.B.

A whole-time Secretary and Assistant Secretary are employed and 38 men and 41 women have been referred to them during the year.

The Council for Mental Welfare does not confine its activities to the mentally defective but also undertakes social work in connection with Gateshead and Newcastle-upon-Tyne Mental Hospitals and with out-patient clinics in these cases.

(4) *The Welsh Boarding-Out Committee* has made a small beginning in placing out-patients from Monmouth and Mid-Wales Mental Hospitals and has also placed a few mentally defective boys from Brentry Colony, but the main part of the social workers' time is spent in seeing new admissions at the Mental Hospitals and in making home investigations.

(5) *The Guardianship Society, Brighton*, is a well-known and long established body which undertakes the boarding-out and supervision of defectives on a much larger scale. At the end of the year 1937 the Society had under its care 902 cases including mental defectives, psychotic patients and others; 576 of these were under guardianship and 169 on licence; 14 were in the small farm Training Homes established by the Society.



(6) *The Guardianship Committee of the Central Association for Mental Welfare*, working in the neighbourhood of Hitchin and Letchworth, had 268 mental defectives on their books at the end of 1937. Twenty-one were discharged during the year, having proved able to maintain themselves and to adapt themselves to the surroundings in which they were placed. It is reported that as a rule the discharged patients keep in touch with the visitors and consult them about change of employment or other questions that arise. Supervision is provided at the request of the Hertfordshire County Council for defectives sent out on licence from Cell Barnes Colony.

The Committee also supervises patients on conditional discharge from Broadmoor Criminal Lunatic Asylum with the help of local associations; 16 such cases were on the books at the end of the year.

A slight falling off is noted in the number of defectives referred this year to the guardianship committee of the Central Association by Local Authorities all over the country, which may, it is suggested, be an indication that more use is being made now of local facilities for boarding-out. If this is so it is a sign of progress which the Guardianship Associations have helped to achieve by demonstrating the value and practicability of the work.

#### 6. DAY CENTRES, CLUBS AND HOME TRAINING.

One hundred and ninety-one centres are now functioning (1st January, 1938) as compared with 189 last year. These include :—

	<i>Voluntary Associations.</i>	<i>Local Authorities.</i>
Occupation Centres ... ..	95	60
Industrial Centres and Classes ... ..	16	10
Clubs and Evening Classes ... ..	10	—
	<hr/> 121	<hr/> 70

Eighty-one occupation centres and 11 industrial centres are now open for whole-time, i.e., for 10 or 11 sessions weekly.

New centres have been opened during the year at Biddulph Moor (Staffordshire V.A.), Ilkeston (Derby C.C.), Exeter (Exeter C.B.) and from 1st January, 1938, at Sheffield (Sheffield C.B.). Seven centres which had formerly been part-time were during the year made into whole-time centres, while several small centres have been amalgamated.

The number on the registers of all centres on 1st January, 1938, was 4,143 as compared with 4,021 a year ago.

	1938.	1937.
Under Statutory Supervision ... ..	2,901	2,812
Under Voluntary Supervision... ..	504	517
Under Guardianship ... ..	609	579
On Licence ... ..	129	113



It will be seen, therefore, that although the training in centres has been improved by increasing the number of sessions and by the provision of meals, there are only 89 more defectives actually in attendance this year than last and the position merits the further attention of the local authorities. Mention has already been made of the growing tendency in mental deficiency work to aim at preventing the need for prolonged institutional care by improving family environment and by providing after-care. Training and occupation form a very important part of any such effort. In areas where these facilities are lacking community care is incomplete and beds in institutions may sometimes be filled by patients who could equally well be cared for outside.

Members and officers of Committees where the question of day training is under consideration may wish to visit centres and to judge for themselves of the value of the work, and the Board will be glad to advise as to suitable centres for this purpose in any particular district.

It is of interest to note that at Newport, Worthing and Newcastle-under-Lyme, premises have been planned and built specially for the purpose of day centres and that other authorities have building schemes now under consideration. The accommodation at Worthing forms part of a training centre used also for other purposes.

In certain areas Centres are conducted in premises which have been adapted specially for the purpose, e.g., in Liverpool, Manchester, Leeds, Staffordshire, Croydon, Northampton. Many of these possess gardens and playgrounds which are an invaluable adjunct. Some are old school premises which contain a hall and big class rooms, essential provisions which are more difficult to secure in an adapted house.

Valuable help has been given in initiating new centres and home training schemes and in the organisation of existing centres in six different areas through the loan service of the occupational organiser from the Central Association for Mental Welfare. The Association also continues to organise occupation centres and home teaching for the Middlesex County Council; there are now seven centres and two craft classes in Middlesex with the names of 304 patients on the registers. Considerable development has taken place in the home training in the same area. At the end of the year 199 patients varying in age from 7 to 52, were being taught in their own homes and there were in addition 38 cases suitable for home training on the waiting list. Six teachers were employed taking on an average about 32 cases each.

The general standard of training continues to rise with the increased knowledge and experience gained in methods of training by the supervisors. But in spite of the short courses organised by the Central Association for Mental Welfare and training courses organised by Local Education Authorities and made available to supervisors of centres, it is not easy to find qualified teachers for



low grade defectives. The Board believe that a recognised course of training, carrying with it a certificate of competence in this specialised branch of teaching, would now be of value and would help to establish a higher standard of training both in Institutions and in the community. The experimental course of 6 months organised this year by the Central Association for Mental Welfare will be watched with interest.

#### 7. DISCHARGES AND DEATHS.

*Discharges.*—The total number of patients discharged from Orders under the Mental Deficiency Acts during the year 1937 was 506, an increase of 122 on the year 1936.

The figures for the years 1933–1936 will be found in the twenty-third Annual Report of the Board (page 60). For the year 1937 the table has been so drawn as to show the cases discharged from institutional care as distinct from those discharged from statutory guardianship.

*Mental Defectives discharged from (a) Institutions and  
(b) Guardianship in the year 1937.*

—	Reason of discharge.				Total.
	By Board of Control.	Owing to nature of Special Report and Special Report and Certificate or because not received (Section 11).	Orders lapsed whilst absent without leave.	On attaining age of 21. [Section 11 (2) (3).]	
(a) Institutions	200	105	99	47	451
(b) Guardianship	28	24	1	2	55
Total ...	228	129	100	49	506

*Deaths.*—The deaths which occurred during 1937 among the mentally defective patients in Institutions (excluding institutions approved under Section 37) and under Guardianship numbered 497, being 1·3 per cent. of the average number of patients resident. Of these deaths: 406 occurred in Certified Institutions, 12 in the State Institution, 8 in Certified Houses, 20 in Approved Homes and 51 among patients under Guardianship. The chief causes of death were: pneumonia (all forms) 106 (21·3 per cent. of the total number of deaths); tuberculosis (all forms) 73 (14·7 per cent.); heart disease 54 (10·9 per cent.); and epilepsy 53 (10·7 per cent.).

## 8. CENTRAL ASSOCIATION FOR MENTAL WELFARE.

The Central Association for Mental Welfare has continued to carry out work of practical value to Local Authorities in connection with the development of the mental health services.

Mention has already been made of the day centres and home training organised for the Middlesex County Council; the boarding-out schemes initiated by the Association for Local Authorities; the boarding-out undertaken by the Association's own Guardianship Committee; and of the holiday homes organised by the Association.

The usual programme of training Courses has been held for:—

Medical Practitioners, University of London.

Teachers of retarded children: (a) Elementary Short Courses;

(b) Teachers' Short Course; (c) Ten Weeks' Course.

Supervisors of occupation centres and institution staffs.

Enquiry officers.

Three educational psychologists are now retained on the visiting staff besides a speech therapist and an occupational organiser. They spend their time in visiting different areas at the request of Local Education Authorities and Mental Deficiency Authorities and also assist at the short courses.

The investigation, started last year, into the incidence of epilepsy and the needs of epileptics living in the community has been continued and, with the co-operation of the National Society for the Care of Epileptics and of the Council for the Provision of Occupational Industries for the Physically Handicapped, an endeavour is being made to draw up a practical scheme to meet the great need that has been found to exist for after-care. The results of the various enquiries are being embodied in a report.

9. STATE INSTITUTION.\* (*Rampton and Moss Side.*)(1) *Rampton.*

We have received the following report from Dr. Schneider, the Medical Superintendent of the State Institution at Rampton:—

“*Numbers resident.*—

	<i>Men.</i>	<i>Women.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
1st January, 1937 ...	641	457	32	29	1,159
31st December, 1937	639	483	32	29	1,183

“*Admissions.*—The number of admissions in 1937 was 91 males and 73 females; these figures include 4 males and 2 females admitted on licence.

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\* An institution for defectives of dangerous or violent propensities established and maintained by the Board of Control under the provisions of section 35.



“ The following table shows the sources of these admissions :—

							Males.	Females.
Certified Institutions (including 4 M. and 2 F. on licence) ... ..	...	...	...	...	...	...	47	45
Institutions under Section 37 ... ..	...	...	...	...	...	...	9	9
Moss Side State Institution ... ..	...	...	...	...	...	...	14	9
Prison ... ..	...	...	...	...	...	...	9	2
Home Office Approved School ... ..	...	...	...	...	...	...	—	2
Mental Hospitals ... ..	...	...	...	...	...	...	4	2
Places of Safety ... ..	...	...	...	...	...	...	3	3
Own Homes ... ..	...	...	...	...	...	...	4	1
Section 3 case ... ..	...	...	...	...	...	...	1	—
Total admissions ... ..							91	73

“ The proportion of feeble-minded to imbecile and idiot patients admitted remains fairly constant; the figures for 1937 are 132 feeble-minded and 27 imbeciles and idiots. But a general lowering of the intelligence-level of our feeble-minded admissions is noticeable.

“ *Transfers.*—Fifty-one males and 18 females were transferred to Moss Side State Institution; 17 males and 13 females improved sufficiently for transfer to certified institutions or to institutions approved under Section 37.

“ *Discharges.*—Orders under the Mental Deficiency Acts were allowed to lapse in the case of 5 males and 2 females who had been transferred to mental hospitals (Section 16) and in the case of 3 females who had absconded; one female was discharged while on licence.

“ *Deaths.*—Nine males and 3 females died. The causes of death were—tuberculosis of the respiratory system 2, pneumonia (all forms) 3, heart disease 1, other diseases 6. The death-rate was 10·27 per thousand.

“ *Licence from Rampton.*—Three male and 5 female patients were granted licence for varying periods during the year. Four males and 6 females were removed from licence for various reasons. There were 2 males and 7 females away on licence at the end of the year.

“ *Section 16.*—Five male and 5 female patients were transferred to Mental Hospitals under Section 16.

“ *Absconders.*—Fourteen males and 10 females absconded during the year, 9 males and 8 females were returned and 3 males were discharged. Six males and 2 females were still away at the end of the year.

“ *General Health.*—Although the death-rate has increased to 10·27 per thousand this year, the health of our community has been satisfactory.

“ I acknowledge with gratitude the help and advice received from the five Visiting Consultants from Sheffield.

“ A new fumigator was installed this year; it is so arranged that infected material is brought into one room and after fumigation is recovered in another room, thus eliminating any danger of re-infection.

“ *Occupation.*—All the industries thrived, and the enthusiasm of instructors and instructed is unabated. A new loom was set up in the weavers' shop to meet the demand for extra cloth for Moss Side. Much interest was aroused in the shop by a request to copy some attractive curtain materials brought from Scandinavia. Another interesting and successful experiment was the production of a tubular cloth for pillow-slips, which will save considerable labour in the sewing room.

“ The shoemakers have a new machine for sewing soles on light indoor shoes. This is an important advance, since it enables us to make a shoe devoid of nails, which any girl will be content to wear to the weekly dance.

“ The metal workers are justly proud of a microtome which they made from the design of one of the medical staff. It is a particularly valuable addition to the laboratory equipment, for it will cut either paraffin or frozen sections with equal accuracy.

“ The concrete party have converted what was a rather unsightly piece of ground into a pleasant Italian Garden; they laid paths of concrete slabs and sowed the intervening squares with grass, and intend to complete the picture with dwarf trees and shrubs in ornamental concrete vases.

“ A portion of the kitchen garden has been grassed to provide a field where male patients can kick a ball about during the free hour from 1 to 2 p.m. The whole of this garden is surrounded by an unclimbable wall, so that patients can be sent into it at a time when many of the staff are at meals, without fear of the consequences of diminished supervision. The ultimate plan is to make provision for football, hockey, tennis, netball and a cinder track on this site.

“ In April a selection of goods made by female patients in the workshops was sent to the Hospitals Nursing, Midwifery and Public Health Exhibition in London; these exhibits gained first class certificates for embroidery, lace-making and raffia work, and a second class for pottery.

“ The laundress reports that the steam-press which was purchased in 1936 has proved very useful. Besides the male patients' suits, their pyjamas are pressed by this means.

“ The company of Girl Guides was increased by the formation of a new patrol. As the company now numbers thirty-six, it is possible to fill one Villa with Guides alone. This is found to work much better than when some of the girls in the Villa were not members of the company.



“ The Boy Scouts celebrated their 1,000th Meeting in July by a tea on the banks of the Trent. The Group won the Northern Signalling Shield with a score of 49 out of 50; they also won the Test Competition Shield for local Scouts and Rovers. The drum and fife band made its first appearance at a Church Parade in Retford on St. George's Day.

“ *Coronation Day.*—The Coronation was commemorated by a programme of festivities which enabled the whole institution to join in the general rejoicings. A solid foundation was laid with a breakfast of Gargantuan proportions and special menus throughout the day. Each patient received an appropriate gift. A Church Service at 9.15 a.m. was attended by a large number of patients and staff, including the Scouts and Guides in uniform. The patients returned to their wards in time to hear the Coronation Ceremony in Westminster Abbey described on the Wireless. There was a cinema show in the afternoon, and after ‘ high tea ’ a special dance in the Recreation Hall. One of the patients in the upholsterers' shop sent an illuminated address of congratulation to Their Majesties, and received acknowledgment in the form of a telegram which now hangs, handsomely framed, in a place of honour in the shop.

“ *Staff.*—Eleven attendants and 8 nurses passed the final examination of the Royal Medico-Psychological Association, one nurse obtaining distinction. Eleven attendants and 9 nurses passed the preliminary examination.

“ Five attendants and 12 nurses passed the St. John Ambulance First Aid examination.

“ A team of 4 attendants won the Civil Service Cup for Fire Drill at Windsor; one of the team established a record for one-man drill, and brought home a medal.

“ An addition to the facilities for sports was made by the opening, in the latter half of 1936, of the bowling green. The game has been taken up with eagerness by the staff and their wives, and many pleasant social functions have followed the Club's engagements with neighbouring bowlers.

“ The medical staff and the senior members of the nursing staff attended an interesting series of lectures and demonstrations on Air Raid Precautions.

“ Two medical officers obtained the Diploma in Psychological Medicine.

“ The staff presented ‘ Iolanthe ’ in April, and enjoyed it as much as did the audience.

“ Once more I wish to record my indebtedness to the whole staff, who have given me their unstinted support.”

(2) *Moss Side.*

We have received the following report from Dr. Gostwyck, the Medical Superintendent of the State Institution at Moss Side :—

“ The table below shows the changes which have taken place in the numbers under care during the year 1937.

		<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Numbers resident, 1st January, 1937	...	117	86	203
Numbers resident, 31st December, 1937	...	153	92	245
Admissions	... ..	51	18	69
Transfers	... ..	15	13	28
Sent on licence	... ..	1	1	2
Returned from licence	... ..	2	1	3
Absconders	... ..	7	2	9
Returned from absconding	... ..	6	2	8
On licence, 1st January, 1937	... ..	2	4	6
On licence, 31st December, 1937	... ..	1	3	4
Absconders, 1st January, 1937	... ..	2	0	2
Absconders, 31st December, 1937	... ..	3	0	3

“ *Admissions.*—All the patients admitted were transferred from Rampton.

“ *Transfers.*—One man and four women were transferred to certified institutions. The remainder, 14 men and 9 women, were transferred to Rampton as they proved unsuitable to remain at Moss Side.

“ *Licence.*—Two men and four women were on licence at the commencement of the year.

“ *Absconders.*—At the commencement of the year two men were absent without leave. During the year seven men and two women absconded, six men and both the women were returned to the institution, leaving three men absent at the end of the year.

“ *Deaths.*—There were no deaths during the year.

“ All the higher grade patients have been employed usefully. When a preference is shown, individuals are given the occupation they desire, for they then take a natural interest in it and are more contented.

“ The women are engaged in the usual domestic work of the institution and in their workshop, where their productions are improving in quality. A small class for the lowest grade women has been commenced but progress is slow.

“ Those men who are employed on the farm and garden take special interest in their work. The higher grade patients appreciate the informal tuition and discussions on the subject which every now and again take place in the evening with the attendants in charge of the outside parties.

“ In addition to the usual occupations in the house, garden and shops a class for the regular training of twenty-two of the lowest



grade men has been opened this year. These patients of varying ages who in the ward were restless, irritating to each other and difficult to control, are now working happily in small groups at various occupations. The change of atmosphere in the ward where they live is evident, for much of the previous turbulence has subsided and the patients are more easily managed.

“The Coronation Day of His Majesty King George VI was notable here and thoroughly enjoyed. All the patients wished to hear the broadcast of the proceedings and the Abbey Service. Their attitude throughout was striking. As a general rule any entertainment which is over one hour in duration causes restlessness and disquiet, but there was no sign of this during the period of more than a couple of hours while they listened. They also heard the broadcast of His Majesty's speech at night. In the afternoon an excellent concert was given and then the Chairman of the Maghull Parish Council, supported by a member of the Council, planted a Commemoration Tree in the grounds. In the evening the patients had a fancy dress dance. Special fare was provided and Coronation souvenirs were presented to each patient from the Maghull Parish Council which supplemented the gifts from the Board of Control.

“During October Sir Laurence Brock did us the honour of planting a tree in the institution grounds as it was not possible for him to do so earlier in the year. He was presented with a souvenir of the occasion from the staff.

“The Annual Sports were held on a bright July day. A considerable proportion of the patients took an active part and everybody enjoyed themselves.

“The cinema runs each Tuesday from October to March. The films supplied continue to be of good standard and always include a recent news reel. It is interesting to note how much the patients enjoy higher class films such as historical, instructional and book adaptations. A good drama will hold their attention and they talk about it afterwards.

“Several concert parties entertained us during the year, the mixed whist drives were well attended and the weekly dances continue to attract most of the patients.

“The male patients, in addition to the usual football and cricket, play skittles and bowls. There is a large variety of indoor table games which are also popular.

“The women play tennis, rounders and hockey. Country dancing has been started.

“The Scouts and Guides are making satisfactory progress, and they join regularly in the local Church parades. The Scouts number 12, and have gained several proficiency badges. The Guides now number 18. Both Scouts and Guides have been inspected by their respective District Commissioners who expressed themselves as very well pleased with their smartness and performance.

“ From the Hostel three girls now go out to daily work in the neighbourhood and their mistresses are well satisfied with them. It is hoped that the original difficulty in placing girls is beginning to grow less.

“ In order to provide the number of single rooms needed by violent and dangerous patients, two of the male Villas were connected by a communicating block which contains 14 rooms on each floor. All rooms are pleasantly decorated and heated by a radiator in the ceiling, painted invisible green as this colour has been found to diffuse the heat best.

“ A course of anti-gas lectures was given during the year to the nurses and attendants by an official lecturer. Half the staff were instructed and another course has been arranged for next year when the remainder will attend.

“ Eight attendants and three nurses entered for and obtained the certificate of the Royal Medico-Psychological Association in nursing mental defectives, and 6 of these attendants gained distinction. Six attendants and one nurse passed the preliminary examination for the certificate.

“ During this winter a number of the nurses attended a “ Keep Fit ” course in the institution, under the instruction of a teacher from Liverpool. This method of employing their spare time certainly tends to counteract the strain of duty in the wards and is, therefore, to be encouraged.

“ I have to record my recognition of active and interested support from all the members of the staff.”



### III.—GENERAL.

#### 1. DEPARTMENTAL COMMITTEE ON THE COST OF HOSPITALS AND INSTITUTIONS.

In July, 1933, the Minister of Health appointed a Departmental Committee to consider and report on questions relating to the cost of construction of certain classes of public buildings provided by local authorities, viz., hospitals (including mental hospitals), public assistance institutions, mental deficiency institutions, maternity homes and baths and wash-houses. Special regard was to be paid to (a) the establishment and periodic revision of standards; (b) modern methods of construction; and (c) the possibility of securing a reduction in the present costs without impairing the efficiency of the buildings for the purposes for which they were designed.

The first report of the Committee, published in 1937, related to the acute general hospital and the final report,\* recently issued, completes the work of the Committee. The report is an interesting one as it is the first time that a single Committee has considered the standards to be established in all the classes of hospitals and institutions provided by local authorities. It was not found practicable to express the standards in terms of cost as this must depend upon the nature of the accommodation provided. The Committee considered that their function could best be fulfilled by laying down standards which might be regarded as sufficient to meet reasonable requirements.

Much attention has been given to standards which may have some influence on the incidence of cross infection between the patients living and sleeping in large groups. This is a question of particular interest to doctors. Recent findings show that the physical separation of patients far beyond what may be practicable is still insufficient to prevent cross infection in diseases like diphtheria and infections caused by the hæmolytic streptococcus. From the beginning, therefore, the medical man is fighting a losing battle on such a simple question as the distance between beds because he cannot suggest a standard in which the risk of cross infection is so low as to be practically non-existent; he must be content with a standard in which the risk of infection is reasonably low.

The other factor which must affect the standard to be adopted in hospital wards is the much older question of the "working space" required. In this variations may occur from time to time, and must depend to some extent on medical and surgical practice, but in fact it does not appear that opinion on this point has varied much during the past 40 or 50 years.

In the report now presented the technical reasons given for the standards adopted are not fully set out. The report is framed

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\* Departmental Committee on the Cost of Hospitals and other Public Buildings. Final Report. H.M. Stationery Office. 2s. net.



rather to act as a guide to the layman who has some administrative experience and who is concerned with the building of new hospitals and institutions under a local authority.

With regard to mental hospitals the most important recommendation refers to the accommodation to be provided in sick wards and dormitories. These standards have varied very little during the past 90 years and have always been expressed either as cubic or floor space per patient. The Committee have recommended, as a new and much safer standard, the distance between bed centres. Every medical officer will know of dormitories where under the old standards it was not possible to give adequate space between beds. Badly designed rooms or awkwardly placed doorways reduced the floor space available and we welcome the standard now proposed as one which can be applied whatever the size of the dormitory or whatever difficulties arise in the exigencies of planning. The standard of 5 feet between bed centres for patients in ordinary wards has been proposed for both mental hospitals and institutions for defectives and has been accepted by the Board of Control.

While the new standard will necessitate some increase in the size of certain dormitories it need not greatly affect cost in the erection of new hospitals and institutions. This will depend largely upon planning. The present practice is to increase the proportion of the simpler type of buildings whilst improving special facilities for the treatment of recent and recoverable cases, and the application of the new standards for dormitories in the simpler type of buildings effects little change from the existing standards of floor space. In buildings with small dormitories there must be greater increase in floor space due to the adoption of the new standards.

There is another point of general interest on which the Committee comment. They have expressed the view that the size of the estate on which a hospital is built is such an important factor that it would be unwise for a local authority proposing to erect a mental hospital to select and buy an estate of less than 150 acres. With this the Board are in entire agreement.

It is proposed as a result of the issue of this report to compile a new revise of the Board's "Suggestions and Instructions for the Construction of Mental Hospitals and of Institutions for Defectives." The revise will be issued and circulated in due course.

## 2. FINANCE.

The costing returns for the year ended 31st March, 1937, in respect of County and Borough Mental Hospitals and Certified Institutions for Mental Defectives established and maintained by Local Authorities have been published as a separate document\* and circulated to the Authorities concerned.

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\* Board of Control Costing Returns for the year ended 31st March, 1937. H.M. Stationery Office. 9d. net.



These returns set out the average weekly cost per patient in detail under the different heads of expenditure for each Hospital or Institution. It will be observed that when loan charges are included the average weekly cost in certified institutions is higher than in mental hospitals; this is due to the fact that many of the mental deficiency colonies are of recent construction involving temporarily heavy loan payments. The total net cost (excluding capital expenditure defrayed out of revenue) for each of the two groups of institutions as a whole is as follows :—

—	Year ended 31st March.	Including loan charges.		Excluding loan charges.	
		Amount.	Average per patient per week.	Amount.	Average per patient per week.
Mental Hospitals	1937	£ 9,253,528	s. 27 d. 7·8	£ 8,557,876	s. 25 d. 6·9
Certified Institutions ...	1937	£ 1,348,846	s. 28 d. 6·0	£ 1,083,520	s. 22 d. 10·7

### 3. PROSECUTIONS.

A prosecution undertaken on our Order resulted in conviction :—

*R. v. Amy Gray Nicholls.*—The defendant, who at the time of the alleged offence was a nurse at Durham County Mental Hospital, Sedgefield, was on 14th April, 1937, charged at the Stockton County Petty Sessions with ill-treating a patient contrary to the provisions of Section 322 of the Lunacy Act, 1890. She pleaded guilty and was fined £2.

The following prosecutions for offences under the Mental Deficiency Act, 1913, which resulted in convictions, were reported to the Board :—

*R. v. Mary Jane Shaw.*—The defendant was charged before the Justices sitting at Sheffield on 9th February, 1937, of secreting her daughter who had escaped from Fir Vale House, Sheffield, an Institution approved under Section 37 of the Mental Deficiency Act, 1913, and was bound over for 12 months in the sum of £5 not to encourage her daughter to escape.

*R. v. John Henry Robinson.*—The defendant was convicted at the Doncaster West Riding Court on 3rd July, 1937, of knowingly assisting his son, a patient at Oulton Hall Institution, a Certified Institution under the Mental Deficiency Act, 1913, to escape and was fined £3.

*R. v. Stanley Hewish.*—The defendant was charged at the Glamorgan Assizes with having carnal knowledge of a mentally defective woman contrary to Section 56 of the Mental Deficiency Act, 1913. He pleaded guilty and was bound over for 2 years.

*R. v. Albert Edward Frost.*—The defendant was charged at the Central Criminal Court on 7th September, 1937, with having carnal knowledge of a mentally defective woman who had been placed out on licence to his wife from Botleys Park, a Certified Institution under the Mental Deficiency Act, 1913. He pleaded guilty and was bound over in the sum of £10 for two years.

#### 4. INQUIRY BY COMMISSIONERS.

The death of a private certified patient in the Warwickshire and Coventry Mental Hospital was the subject of an inquiry held at the hospital on 8th June, 1937, by two Commissioners.

The patient (E.M.B.), admitted to the hospital on the 29th June, 1935, died therein on 8th April, 1937, from barbiturate overdose accidentally taken, aggravated by myocardial degeneration and a hydatid cyst, and a verdict to this effect was returned at the inquest.

The Commissioners, after examining nine witnesses, all of whom were sworn, came to the following conclusions as to the cause of the patient's death :—

1. The initial cause was the mistake made by the night nurse as to the bottle which she obtained from the poison cupboard in the " office."

2. Her mistake was, to some extent, contributed to by the lack of uniformity in the construction and use of the poison cupboards and medicine chests throughout this hospital, and the lack of instruction of this nurse who had charge of the keys as to the contents of the cupboards and the chest at Leigh House.

3. The consequences of her mistake ought, nevertheless, to have been avoided had the ordinary routine precautions in the administration of any medicine been observed.

In this last respect serious blame, in our view, attaches to the night charge sister because

- (a) She sent a junior nurse for a draught which she admitted she should have fetched herself: and

- (b) She ordered its administration direct from the bottle: and both nurses were also guilty of grave negligence in that they failed to read the label on the bottle either before or after administration, or in any way to satisfy themselves as to its contents.



As the result of the investigations made in the course of their inquiry the Commissioners made certain recommendations in regard to the issue and storage of sedatives in the wards of the hospital, and the Board learn that these have now been carried out by the hospital authorities.

The night charge sister concerned in this case resigned and the junior nurse was severely reprimanded by the Committee.

#### 5. RESEARCH AND OTHER SCIENTIFIC WORK.

In Part II of our Report we publish our usual supplement of contributions which have reached us from Institutions relating to research and other scientific work during the year, including references to papers communicated by members of institutional staffs to medical meetings or scientific journals.

The number of communications received this year has reached 72 as against 28 ten years ago.

The communications come from the Central Pathological Laboratory (London County), from 45 out of 75 County Mental Hospitals, 15 out of 25 County Borough Mental Hospitals, 3 Registered Hospitals, and from 8 Institutions for Mental Defectives. There are 13 public mental hospitals which have never sent any contribution of this nature, and we trust that those concerned will consider whether this is due to shortage of staff or to absence of laboratory facilities.

The papers reproduced in the supplement in Part II are prefaced by a summary indicating generally the directions in which the more important inquiries have been pursued.

By Order of the Board,

(Signed) L. G. BROCK,  
*Chairman.*

(Signed) P. BARTER,  
*Secretary.*

Metropole Buildings,  
Northumberland Avenue,  
London, W.C.2.

June, 1938.

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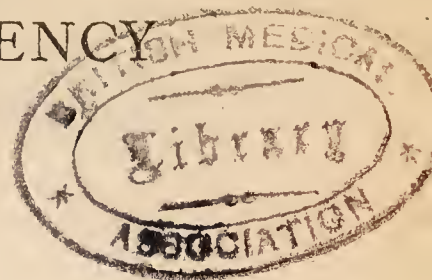
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LUNACY AND MENTAL DEFICIENCY



THE  
TWENTY-FOURTH ANNUAL REPORT  
OF  
THE BOARD OF CONTROL  
FOR THE YEAR 1937

PART II

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OF

THE BOARD OF CONTROL

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### Summary

Below are set out the communications which we have received in regard to research and other scientific work, both clinical and in the laboratories, carried out during 1937. There are 72 communications and, although that number is 5 less than in the previous year, it is highly satisfactory to contrast it with that of 28 received 10 years ago. Besides the report from the London Central Pathological Laboratory, communications have been received from 45 out of 75 County and 15 out of 25 County Borough Mental Hospitals,\* from 3 Registered Hospitals, and from 8 Institutions for Mental Defectives.

There are still 13 public mental hospitals—9 County and 4 County Borough institutions, which have never sent any contribution to this Supplement. Four of them are among the smallest of these institutions, 5 are without a laboratory, and we are aware of other difficulties which hamper some of them. Nevertheless, we feel sure that at each of them there must arise from time to time cases of interest whose clinical study and writing up, even without the help of laboratory findings, would be of interest and value and which we should be glad to include in the Supplement. The older case-books, too, must contain a wealth of material valuable for statistical study. We would urge medical officers of these 13 hospitals to give sympathetic thought to the matter.

*Chronic Infective Processes (Septic Foci, etc.).*—This topic—"a pathological problem which later is presented in another guise, that of mental symptoms"—forms almost the entire matter of the communication from Birmingham. It first sets out in a general statement the manner in which the scheme of clinical investigation and treatment built up during previous years has been elaborated during 1937. It does this by a commentary on the findings under various headings of the physical and mental conditions presented by 39 selected cases together with some observations on treatment. Secondly, as an appendix to this commentary, there follow descriptions of the 39 cases. Among these headings mention may be made of *heredity* and *familial disease*, *head injury*, *operation* and *alcoholism*, and it is contended—that, while these are doubtless present and perhaps conspicuous, a study of the cases concerned shows that it was the sepsis which was really responsible for the mental symptoms; that *gastric disturbances* (another of the headings) proved in fact to be due to conditions of closed sepsis; that the route by which *influenza* (another heading) exerts its debilitating effect on the nervous system is by causing or lighting up sepsis; that in cases of *insomnia*, with or without *headaches*, treatment of sepsis was followed by removal of symptoms which previously had not yielded

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\* That is, reckoning for the purposes of this Supplement Birmingham as one mental hospital.



to sedatives and hypnotics; that *self-injury* (another heading) can be prompted by the irritation and pain of cephalic sepsis; and that the genesis of such reactions as *fear* or *anger* or *fear-anger*, also homicidal and aggressive conduct, can be found in relation to sepsis; similarly in the case of *sex ideas* and *sex conduct*. Next follow a series of conditions of physical disease found on admission:—*maleruption* of teeth, *buried roots* and *diseased teeth*, with a statement of their relation to cephalic sepsis and of the principles of treatment; *disease of tonsils* and other lymphoid tissue and of the *nasal sinus*, together with some significant statistics and some important suggestions as to how it is that other observers fail to find sinus disease in such cases—citing especially their failure to use suction-exploration technique; *pupillary inequality* and *squints*, *ptosis*, *facial spasms* and *grimacings*, with remarks upon their occasional dependence on sepsis; *acute otitis* and *mastoiditis*, their genesis and instances of resultant tinnitus passing into auditory hallucinations—with evidence which is considered as supporting in general a peripheral origin for these and other sensory disturbances, for example, bad smells (*cacosmia*) and bad tastes (*cacogeusia*). Another heading deals with what can be learnt from *irrigation of the lower bowel*, and explanation is offered for the frequency with which positive results are obtained in the routine testing of new admissions for dysenteric infection. Other sections deal with the *psychoses of reproduction*, with variations of symptoms in relation to *climate* and *season*, and an extensive note on *treatment*. In this last connection attention is called to the advent of anti-scarlet streptococcal serum and especially of *Prontonsil* and to the latter's possible effect upon the type of admissions coming to mental hospitals, and in lessening the death-rate in recent cases.

The conclusion is expressed that, when properly directed and completely applied, there is no other scheme than that of the removal of septic and irritating areas, the conversion of closed into open sepsis, and the treatment of residual sepsis which offers the same possibility of alleviation of the sufferings of the patients, and that it therefore should be applied as a premier therapeutic measure. To this pronouncement is added the qualification that for success the work must be done thoroughly, and that unfortunately there is no other branch of medicine and surgery in which work can be done more incompletely—and therefore more ineffectively.

Impressive as such a statement undoubtedly is, its subject is one upon which opinion is as yet far from agreed. Striking as are these 39 cases (males 22 and females 17), admittedly they are selected ones; in none of them does the age exceed 52 and the average of their ages is 34; 25 were admitted during 1937, 10 during 1936, 3 during earlier years and 1 during the first week of the present year. Is it possible that the validity of the contention could be examined more easily were its applicability and actual application set out in relation to a consecutive series of admissions for a period (say, a year), and studied and analyzed, say, two years after the expiry of that period? Again, and has been remarked before in a previous Supplement, there has not yet been, so far as we are aware, a comparison between two series of consecutive post-mortem examinations, one from a mental hospital and the other from a general hospital, in which in each case the sinuses have been examined and their condition noted. Though it is quite possible that, except in certain areas, such a comparison might be difficult to secure, such a comparative series of observations could not fail to be of value.

Be that as it may, it is remarkable how few of the other communications there are in which any direct allusion is made to this subject—though doubtless, if desired, not a few of the activities described could be claimed as tending to the removal of sepsis. For more direct allusions, reference may be made to the reports from Bethlem where mention is made of tests for the localization of septic foci and research in toxemias and cerebral oedema; from Macclesfield where mention is made of acute sepsis of the urinary tract; from Warwick for reference to removal of the tonsils in mental disorder; from Northampton County for the findings of the dentist, ophthalmic surgeon, etc., in their



examination of every new admission; from St. Andrew's (Northampton), where it is stated that dental sepsis was looked for carefully in every case and that evidence of definite apical foci of infection was found in 39 per cent. of the new admissions. In the last-named report allusion is made to cases of dental sepsis in which at first resentment and refusal of treatment were encountered but, with establishment of confidence, distinctly beneficial results, both physical and mental, followed treatment; and reference is made to cases with impacted wisdom teeth. In the communication from The Fountain allusion is made to "dental routine" (mouth cleansing after meals) carried out throughout the institution in order to combat prevalence of pyorrhoea.

*Biochemical and Physiological.*—*Choline metabolism* has continued to be the subject of inquiry at Cardiff—the formation of *acetylcholine* in the central nervous system, a substance primarily responsible for the transmission of impulses in the nervous system. It would seem that its source "acetylcholine precursor" is present only in the nervous system. In itself it is inactive and serves as a store. Another part of this work shows the antagonism, in action, between acetylcholine and morphine and certain of the latter's alternatives. It is of course of great importance to understand the essential mode of action of drugs and other agents; and, in mental disorders, perhaps especially of *narcotics*. This has been another part of the work carried out at Cardiff: e.g. chloral, luminal, evipan. Another enquiry in progress there relates to *amine oxidation* by the brain and other tissues and, though highly technical, its reading brings out in a most interesting fashion the interaction within the body of various agents, some harmful and some beneficial. The *trypanocidal activity* of the *cerebrospinal fluid* is a very important subject, the more so perhaps should it be proved, as seems likely from continued and extended studies at Cardiff, that in some individuals this fluid possesses trypanocidal activity in virtue of its own essential constituents. Reference to continuance of studies on the *Respiration of the Brain* will be found in the communication from the London Central Laboratory, also to the effect of *Benzedrine* on intelligence scores. Studies in relation to *bromide intoxication* and to the blood bromine content find mention in several\* of the reports; upon *barbiturate excretion* in the report from Swansea and Rainhill; upon *blood calcium in Mongols* (The Fountain); upon the estimation of *Vitamin C*, and upon *vasomotor disturbances in Schizophrenia* (St. Ebbas), upon *phenylketonuria* (Royal Eastern Counties Institution, and Swansea), upon *Body-weight* (Glamorgan), and upon the estimation, in involutional cases, of *follicular hormone* with a view to the application of hormone treatment (Wadsley). In the report from Oxford mention is made of studies under varied experimental conditions of non-paretic and paretic blood serum. From St. Andrew's (Northampton) is a description of *Tissue culture methods* in the study of the Nervous System: of much interest and, if highly technical, it exemplifies the exacting and painstaking nature of this kind of work.

*Dysentery, Typhoid, and allied Infections.*—Attention and a rigid watchfulness towards these conditions grow rather than slacken, with the result that the control of these affections in institutions for mental cases is becoming much better understood and more effective and the amount of disturbance in medical administration caused by them is much less widespread than, not so many years ago, was the case. This, we think, is reflected in the smaller number of communications in which more than passing reference is made to work done in relation to them. From Wakefield comes their Nineteenth Post-War Report upon these infections; it includes mention of endeavours to obtain *antidysenteric vaccine*, as do the communications from Bristol and Whittingham. The problem of the *typhoid-carrier* is dealt with in the reports from Claybury, from Wakefield where treatment by *Bacteriophage* is mentioned, and from York City where remarks are made upon the effectiveness of

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\* London Central Laboratory, Claybury, St. Ebbas, Cane Hill, Darenth, Lancaster, Norfolk, Northampton County.



*removal of the gall-bladder.* In that from Northampton allusion is made to difficulties due to a long-standing legacy of enteric, coupled with expression of belief that it is to the routine examination of patients that their freedom from dysentery is due : at Birmingham, too, it was felt that it was the laboratory findings that definitely averted an epidemic of dysentery. Other allusions are made to these infections in 10\* of the communications.

*Diphtheria and Scarlet Fever, etc.*—As might be expected, work in relation to such infections as these, including the application of *Schick* and *Dick tests*, is needed more in mental deficiency institutions than in mental hospitals : see, for example, the reports from The Fountain, Stoke Park, and especially from the Royal Eastern Counties Institution ; East Sussex and Park Prewett are mental hospitals where these infections have necessitated similar kind of work, and the report from Warwick has references to *chicken-pox* and *herpes zoster*.

*Tuberculosis.*—Allusions to this disease are much fewer than once was the case. The report from Cardiff merits special mention for its account of a survey of *Tuberculin sensitivity* in mentally disordered persons. The survey was mostly upon women because it was on the female side of the hospital that the patients had been previously tested by the Mantoux intracutaneous method. So far, it emerges that the incidence of positive reactions was greater than in the general population, and was particularly referable to the Schizophrenic group of patients.

*Physiological, Histological and Pathological.*—At Birmingham, work has been continued upon the *vascular capillarity of the cortex* in brains from mental hospital patients and a paper entitled “Cerebral Ischaemia and Mental Disorder,” was published September, 1937, in the *Journal of Mental Science*. It includes a new theory that “pathological alterations of the capillary supply of the synapses is the cause of that local defective brain metabolism responsible for the symptoms of mental disorder and defect.” As part of and in the course of these investigations the laborious examination of thick sections of brain for capillary irregularities has been continued, the number of cases examined now having reached 199. At Caterham work has been in progress upon brain histology in *mongolian imbeciles*. For many years (since 1914) reports from Dr. B. H. Shaw have been reproduced in this Supplement, and in the current report from Stafford, the last one we shall be receiving from him, mention is made upon the *histopathology of the Cerebellum* in relation to evidence of anoxemia possibly due to deficiency of *cholesterol* as part of the body's defensive mechanism. In the report from Oxford, mention is made of work upon the histology of 250 *Pituitary glands*. In the report from Nottingham City, there are observations on the *autonomic nervous system* in psychoneurotic and psychotic conditions, correlated with appropriate treatment ; coupled with additional evidence as to the essential nature of the *psychoneuroses*.

Systematic examination for pathological *granulation of leucocytes* in mental disorder has been carried out at Norfolk : remark is made that the observations of continental reporters have not been confirmed. In the communication from The Fountain allusion is made to work there upon differential blood-counts in *Whooping-cough* ; and, in the report from Leavesden, to investigations into pigmentary degeneration of the *Retina* and into subacute diffuse *Ependymitis*. At the London Central Laboratory, studies have been carried out on lesions of the *basal ganglia* in defectives and on the pathogenesis in *Schilder's disease*. In the communication from the Central Laboratory will be found also a short account of the considerable progress made by the use of the *Electro-encephalograph*, in the investigation of electrical currents which, even through the intact skull, can be led off from the brain. It has been shown

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\* Macclesfield, East Sussex, Devon, Park Prewett, Storthes Hall, Hereford, Brentwood, Wilts, Swansea, and The Fountain.



how the phenomenon, no longer of purely academic interest, can be used in aid of the localization of cerebral tumours and of prognosis and treatment in epilepsy.

*Clinical Cases and Pathological Notes.*—A case of *Balantidiosis*, believed to be the first reported in Great Britain (see *Lancet* 8, i, 1938) is reported from Rainhill, cases of *malignant growth* in the communications from Whittingham and Storthes Hall, cases of cerebral tumour from Storthes Hall and Raucedon, of *Alzheimer's disease* from Napsbury, of *hereditary sebaceous cyst* (with possible relationship to malignant tumours) from Royal Eastern Counties Institution, of *acute encephalitis* from East Sussex and Leicester City, of *cerebral anaemia* from Storthes Hall, of *peripheral neuritis* from Wonford House, of *juvenile tabo-paresis* (illustrating the value of the Meinicke reaction) from Horton, of *thrombocytopenic purpura* in a case of congenital syphilis associated with intolerance to sulphostab (The Fountain), of biliary calculus, (but without discomfort), from Whittingham, of *tuberculous bronchopneumonia* (Wadsley), of *agranulocytosis* from Swansea, and autopsy in a case of *phenylketonuria*\* from Oxford. Several cases of *bromide intoxication*\* on admission are reported (Cane Hill), a case of *familial myoclonus epilepsy* 5 out of 8 children and 2 cases (brother and sister) of familial psychosis associated with endocrine disorder (Royal Eastern Counties Institution), a case of profound *dissociation* (Swansea); and a case of obvious interest in considering treatment by the use of cardiazol,† namely recovery in a case of *dementia praecox* following one spontaneous fit (Bristol). Two cases are interestingly described in the form of psychological studies in order to illustrate the value of test work as a guide to treatment (Bethlem), and, in the report from Leavesden, an infundibulo-tuberian syndrome in a case of *pseudohermaphroditism*—a most painstaking investigation and a model of thoroughness and completeness in the presentation of a case.

*General Paralysis and Syphilis, their Treatment and Study.*—From Horton we have received a report of the Malaria Therapy Centre as now organized, with mention of six publications on work done in it; and, from the London Central Laboratory, a report of the Clinic for the attendance of discharged cases of treated general paralysis with 582 such attendances during the year. See also the communications from Devon, Leicester City, West Ham, Norfolk, Wakefield and Cardiff; at the last 3 hospitals pyrexia is induced by means other than malaria; similarly at Birmingham, where arsenical treatment is combined with the pyrexia; and at Lancaster stovarsol is given instead of tryparsamide as an adjuvant to malaria. Blood tests for syphilis, followed according to circumstances by examination of the cerebro-spinal fluid, are reported from a number‡ of the hospitals as carried out on a considerable scale, sometimes as a routine measure in all new admissions; and observations are furnished as to the comparative value of certain of those states. At Park Prewett an instance is described in some detail of the striking value of the Meinicke test in a case of congenital syphilis. The report from the London Central Laboratory contains an allusion to the occurrence of protective antibodies to syphilis.

*Treatment (other than by directly psychotherapeutic methods).*—As is not surprising, considerable attention and trial are being given to the use of *Insulin shock* (hypoglycaemic shock) and *cardiazol*, mainly but by no means entirely in schizophrenic cases: see especially the full and interesting accounts from West Ham and Three Counties§; from Cane Hill and Dorset.

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\* See also p. 13.

† See also below.

‡ For example, see Bristol, Derby Borough, Devon, Leicester City, Macclesfield, Northampton County, Park Prewett, Storthes Hall.

§ Also, Banstead, Bexley, Cane Hill, Claybury, Hanwell, West Park, Cardiff, Devon, Lancaster, and (with remarks by Sir Arthur Hall) Wadsley.



where *soneryl* (a form of barbituric acid) has been used. References to *somnifaine narcosis* will be found in the reports from Cardiff (400 cases) and several\* other hospitals; and in the report from the Isle of Wight is interesting mention of the value, in combating *insomnia*, of good spring mattresses in lieu of the more usual horsehair ones. Reference to histamine in the treatment of melancholia comes from Whittingham, and from Lancaster to *oestrin therapy* in involutional psychoses. In aetiologically designated mental disorders it would be of interest and would make for precision if some definition of the scope of the designation could be given: for example, in the case of the term "involutional" is it age (and, if so, within what range) or disturbance of catamenia or both that authorizes the use of the term? The value and its limits of *benzedrine sulphate* in states of depression finds mention in the reports from Warwick, Hereford, Swansea and, with allusion to *seconal*, from Bristol; and of *ephedrine* in states of excitement, from Hereford. *Evipan anaesthesia* including its occasional special value in mental hospital practice is the subject of interesting accounts in the reports from St. Andrew's (Northampton) and Warwick; and the use of *pentothal acid* as a new basal anaesthetic is mentioned in the report from Dorset. For the treatment of the late results of *Encephalitis lethargica* by such remedies as high atropine dosage, Bulgarian belladonna root and benzedrine, see the communications from Wadsley, West Park, Three Counties, Hereford, and Lancaster; also from the last named for the use of sodium amytal in catatonia. The use in *Epilepsy* of such drugs as mendeic acid and prominal is described in several† of the contributions. The Warwick report mentions intensive bromide treatment. Naturally, the advent of *prontosil* finds several mentions: at Three Counties, Bristol, East Sussex (with emphasis on its value in preventing renal damage) and Birmingham where its place in their scheme of treatment is discussed and where, as already remarked, interesting allusion is made to its possible future effect on the type of admissions coming to mental hospitals. In the report from The Royal Eastern Counties Institution there is allusion to the use of *Embryonin* in measles. *Assisted respiration*, with a follow-up of cases so treated, is mentioned in the report from Claybury. Such lines as *electrical* and *light* treatment and *hydrotherapy*, with special emphasis on the latter's value, find place in the communication from St. Andrew's (Northampton).

*Psychotherapy and Psychological.*—In several of the communications accounts are given, usually accompanied by statistics, of psychotherapy mainly as practised at out-patient centres. We are glad to find included in this work an increasing number of references to *child guidance* and *delinquency*. See the reports from Isle of Wight, Wadsley, Northampton, Warwick, Park Prewett, and Glamorgan. In that from Swansea *hypnosis* is discussed. The report from Bethlem describes the use of *Kretschmer's psychobiogram* and *Thurstone's multiple factor method*; the grouping so obtained is claimed to have a definite clinical significance and to be of assistance in diagnosis; the value of the use of *Lowenfeld's mosaics* is also discussed and some comments made upon the *Terman-Menil revision* of the Stanford-Binet tests. In the report from Caterham work is described in relation to the *Performance Test Behaviour* of adult morons and claim is made for the method as an aid to prognosis as to success or failure in society. Mental deficiency tests and their application are dealt with extensively in the reports from Hortham and especially the Royal Eastern Counties Institution, including at the latter an account of the application of its *Matrix Tests* (perceptual intelligence) and a study of schizophrenic performance on the Stanford-Binet scale.

*Genetics.*—The communication from The Royal Eastern Counties Institution, besides recording the erection and opening there of the Research Laboratory (the purpose of which by no means is to be confined to Genetics), contains

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\* Cane Hall, Devon, Warwick, Park Prewett, Shenley, Swansea.

† For example, Devon, Glamorgan, Norwich, Rauceby, Norfolk.



reference to the publication, as a special report of the Medical Research Council, of their Clinical and Genetic Study of 1,280 cases of Mental Defect. From Stoke Park (Bristol) comes an account of the lines on which research there into the causation and inheritance of mentality, whether normal or abnormal, is being carried out.

*Medico-Legal.*—Remarks upon the benefits of the Mental Treatment Act in operation are made in the communication from St. Andrews (Northampton), upon Temporary Treatment in that from St. Ebba's, and upon Observation Wards in that from Leavesden.

*Routine laboratory examination and tests.*—With very few exceptions, each communication contains a summary of this routine work, and we are glad to see this custom maintained. Their regular publication tends, as can be seen by comparing the contents of recent Supplements with those of previous years, to their enlargement and elaboration on lines that certainly are illuminating: for instance, by the inclusion of reports on *Dentistry*, on the uses of *X-ray apparatus*, of *hydrotherapy*, of *electrotherapeutic* and other *appliances*. In these relations see, for example, the communications from Birmingham, London Central Pathological Laboratory, Wadsley, Horton, Shenley, East Sussex, Devon, Bethlem, St. Andrews (Northampton); also Northampton County where this routine work is envisaged in a schematic way. In most of the reports from Mental Deficiency institutions there are accounts of the routine application of mental tests, some of them interestingly comparative in direction.

Some\* of these summaries of routine work mention serviceable laboratory work habitually done in relation to such hygienic matters as *milk analysis*, *water supply* and its examination, and the testing of the efficiency of sterilizing procedures in relation both to the laundry and to surgical dressings. Routine examinations for *Abortus infection* have been made at Park Prewett and Norfolk. At a few mental hospitals, conspicuously East Sussex, the laboratory serves also as the Public Health Laboratory for the area to which the hospital belongs, and evidently performs much valuable service.

*Pathological Museums.*—In connection with several of the laboratories, notably perhaps in Lancashire and at Wakefield, specimens, either out of the common or otherwise interesting, have been collected and arranged as a Museum. No doubt their preparation and mounting take up a good deal of time and no doubt they are of especial service at mental hospitals connected with Medical Schools; but it is certain that the effort might be extended with advantage; its maintenance is a scientific stimulus, the specimens are often of much use in the course of lectures to nurses, and at meetings of local medical practitioners which are held at some of the mental hospitals—a practice again well worthy of extension—the museum generally affords much interest. In some of this year's contributions (e.g. The Fountain, Wakefield, Shenley) mention is made of this museum work and of improved methods of preserving specimens as part of the routine work of the laboratory.

*Staff Conferences.*—In the communication from Cardiff, reference is made to the success of clinical and biochemical Conferences which continue to be held. It is stated that at these gatherings suggestions for future treatment and research are discussed and criticized. We know that it is not only at this hospital that such gatherings are held: Runwell, for example, is another instance. We understand that they are arranged at a time when members of the visiting and part-time as well as the resident and full-time staff can

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\* See the communications from Wakefield, Storthes Hall, Park Prewett, East Sussex, Shenley and Bethlem.



attend; and we know that at some places it is the custom to discuss, briefly or at length according to the requirements of the case, the cases of all patients who have been admitted since the previous meeting. The importance of this practice, in the interests of research as well as of immediate treatment, we are sure, cannot be exaggerated, and it is a matter upon which we should welcome information.

# I.—THE JOINT BOARD OF RESEARCH FOR MENTAL DISEASE (CITY AND UNIVERSITY OF BIRMINGHAM).

## A.—*Laboratory Report.* By Dr. F. A. PICKWORTH, B.Sc., Laboratory Director.

The examination of thick sections of brain for capillary irregularities has been continued. The figures for the total number of cases examined now being 199. Of these, 41 were from cases of general paralysis, 33 epileptic psychoses, 28 confusional insanity, 28 dementia, 19 schizophrenia, 12 paranoia, and 8 manic depressive. In nearly all of these, areas of ischæmia could be readily demonstrated, the greater proportion also showing congestion and hæmorrhages, many in addition showing thromboses and perivascular granules, the latter often indicative of chronic lesions.

During the past year, 1,875 specimens of fæces have been examined for typhoid-dysentery organisms; 1,144 abnormal organisms have been isolated, and of these 62 from 47 cases at Rubery, Hollymoor and Monyhull have on culture given typhoid or dysentery organisms. *B. typhosus* was isolated 7 times from 4 carriers. Dysentery Flexner W was isolated 36 times, dysentery Sonne 13 times, dysentery Y 3 times, and X.Z and Newcastle once each. In addition to these, *B. aertrycke* (mutton) was isolated from one case on two occasions; 123 specimens showed *B. proteus*, 92 *B. fluorescens*, 376 *B. Freidlander* and 125 non-agglutinating salmonellas. The dysentery cases were mostly non-clinical, and the special care which the laboratory information indicated is believed to have averted an epidemic of dysentery "W" and Sonne. In every case we have used the Oxford standard sera for diagnosis.

For their quantitative ability to hæmolyse red blood cells, 242 specimens of blood serum have been examined and 681 specimens have been tested for the presence of a heat-stable hæmolytic agent, 401, i.e., 58.8 per cent. giving a positive reaction; 74 sera have also been examined for precipitins to sheep's serum in the attempt to find out whether mutton, used in the diet, was responsible for the hæmolysins for sheep's cells which above tests had shown (and which are a possible source of error in the Wassermann reaction): 9 of the 74 sera gave a definite positive precipitin reaction at a dilution of 1 : 100.

Streptococci to the number of 883 have been isolated from various sources: of these 185 were hæmoglobinitic; 255 organisms isolated from various sources had the ability to lyse red blood corpuscles, and of these 144 were coliform organisms, 61 Streptococci, 32 Staphylococci, 10 Diphtheroids, 5 Gram positive bacilli, and 3 gram negative diplococci. We have also isolated the Pfeiffer Influenza bacillus on 30 occasions, 21 from nose and throat swabs, and 9 post mortem.

Specimens of blood examined for sugar content numbered 159. Of the fasting cases the sugar in 8 was 50–60 mgm, and in 29 was 60–70 mgm.: of those taken after glucose 3 were under 70 mgm., in 7 cases the sugar reached a figure above 250:—of these 3 cases exceeded 300 mgm/100 c.c. blood.

In view of the specific treatment of our cases having streptococcal infections, with prontosil, 17 specimens of blood taken during such treatment were examined for sulphæmoglobinæmia, but no traces of this substance were present.



Eighty-eight blood counts showed 5 with red counts below 3 million : 16 had a hæmoglobin percentage of 65 or less ; 18 had a colour index below 0·9, with 7 of 1·1 and over. In the white counts 64 examinations gave 14 above 10,000, and 27 below 7,000. Differential counts showed 10 with polymorphs 50 per cent. and below, and 6 with 75 per cent. and over : 12 gave a lymphocyte count of 40 per cent. and over ; 16 gave mononuclears plus transitionals 10 per cent. and over, and 14 showed a slight eosinophilia of between 3 and 5 per cent. The cases were of course selected but even then the deviation from the normal is worthy of note.

Sixty-seven post mortems have been carried out, 63 being examined for chronic infection of the nasal sinuses, 26, i.e., 41·3 per cent. being positive in this respect.

Sixteen specimens of sphenoid and adnexa have been examined histologically for Gram positive organisms and in 5 of these we have been able to detect such ; 191 sections, 250u, from 35 brains have been examined by the capillary stain technique, and vascular lesions of the type described in previous reports have been confirmed in every case.

Other routine work has included the following :—Wassermann reactions 926, positive 229 (24·7 per cent.) : Widal reactions 729, positive 543 (74·5 per cent.) ; cerebrospinal fluid—cytological 104, globulin 107, colloidal gold reactions 108, positive 22 (20·4 per cent.) ; protein estimation 8, heat stable hæmolysins 89 ; nasal sinus washouts bacteriological examination 21 (included 3 positive for diphtheria), nasal swabs bacteriological 23, nasal swabs for diphtheria 141 (30 positive) ; throat swabs for diphtheria 143 (positive 3) ; tonsil swabs for diphtheria 33 (positive 2) ; cervix swabs bacteriological 30, microscopical 53 ; post mortem swabs : bacteriological 47, microscopical 53, for tubercle 9 ; sputa : bacteriological 3, for tubercle bacilli 31 (positive 3) ; blood : hæmolytic toxin 242, Van den Bergh 207, urea estimation 10, fragility tests 90, coagulation time 2 ; urines : bacteriological 75, microscopical 155, chemical 99 (albumen present in 25), for tubercle bacilli 4, sugar estimations 6, urea estimations 11 ; fæces : bacteriological 1,875, microscopical 1,839, for tubercle bacilli 17 (positive 2) occult blood 5, precipitin tests 74, vaccines 2. The total number of specimens examined during 1937 was 8,567.

#### *Publications.*

“ *Cerebral Ischæmia and Mental Disorder* ” by F. A. PICKWORTH (read at the Annual Meeting, R.M.P.A., 1937) *Journ. Ment. Sci.*, Sept. 1937.

The vascular capillarity of the cortex (shown by the author's technique) in brains from mental hospital patients, with irregularities believed to be of physiological significance, are described and illustrated. The reasons for rejection of some time-honoured theories are given. Normal physiological and anatomical data, and the clinico-pathological findings in mental disorder cases are discussed in relation to the dependence of conduct upon the vascular supply of the various synapses ; and a new theory is put forward that pathological alterations of the capillary supply of the synapses is the cause of that local defective brain metabolism responsible for the symptoms of mental disorder and defect (8 figures, 1 sketch, 1 table).

B.—*Clinical Report.*—By Dr. T. C. GRAVES, F.R.C.S., Chief Medical Officer, Birmingham City Mental Hospital Committee.

#### *General.*

The clinical research work of the year has been directed to the further elaboration of the scheme of clinical investigation and treatment built up during, and set out in the reports of, previous years.



The writer is satisfied that when properly directed and completely applied there is no other scheme of treatment which offers the same possibility of alleviation of the sufferings of the patients and he would not be satisfied that he was doing the best he could to ameliorate their conditions unless it was applied as a premier therapeutic measure.

The removal of septic and irritating areas, the conversion of closed into open sepsis, the treatment of residual sepsis, should precede any attempt at other forms of treatment. Unfortunately however this work must be thoroughly done, for there is no other branch of medicine and surgery in which work can be more incompletely done—and therefore more ineffectively.

To illustrate this work descriptions have been compiled of 39 cases and this series is preceded by a commentary on the findings under different headings of the physical and mental conditions presented, together with some observations on treatment including combined pyrexial and tryparsamide treatment for syphilis, protamine zinc insulin to reduce Fear-Anger reactions, and the Prontosil treatment of residual sepsis.

Included in this commentary are statistics of the findings and treatment in the Ear, Nose and Throat Department for the past year.

*Heredity and Familial Disease.*—The series includes several cases where various conditions of disease and disorder manifest themselves in the families of these mentally disordered patients.

Psychotic heredity was found in Cases 1, 5, 6, 10, 13, 16, 36 and 39 and Epileptic heredity in case 20.

Alcoholic heredity appeared in Cases 1, 16, 28 and 31.

In Cases 1, 13, 18, 31 and 39 Tuberculosis occurred in the near relations and especially was that condition pronounced in Case 1. Similarly, in Case 16 the history showed that several members of the family were subject to chronic nasal catarrh.

In Cases 1, 13, 16, 31 and 39 combinations of these undesirable influences were strongly present yet the treatment of septic disease produced in Case 39 at the least a definite amelioration of the mental disorder and in Cases 1, 13, 16 and 31 a substantial recovery. In Case 1 removal of diseased and mal-erupted teeth had been followed by recovery lasting over seven years and relapse only occurred after the stress of childbirth and exacerbation of the septic state.

#### *Some Conditions of Physical Disease Precedent to Mental Disorder.*

*Head Injury.*—In 6 cases the histories contained a reference to head injuries of various kinds.

In 2 cases, 14 and 16, there was mention of concussion as having occurred, in the first case 3 years and in the second case 12 years before admission to mental hospital.

In 4 cases the head injury had not been sufficient to have caused surgical traumatic states.

In Case 1 there was a history of a fall on to the back of the head.

In Case 28 a bicycle accident had resulted in a fall and had required several stitches in the chin.

Case 30 had had an 18 inch spanner fall on his head and from that time, although there had been no concussion, the patient's wife declared his illness had started and especially had he complained of headache.

Six years before admission Case 35 had had a "bump on the head" and since this she experienced headaches, becoming more depressed and reserved.

In all these cases treatment of chronic infective processes was followed by mental recovery and cessation of headache.

Conditions simulating traumatic manifestations may be caused by disease.

In Case 33 associated with a septic blepharitis and conjunctivitis there appears a minor black eye—not caused by any trauma—due to congestion



of the venous plexus below the orbital sheath as a result of the inflammation of the eye coverings.

Removal of pharyngeal sepsis was followed by resolution of the inflammation and disappearance of the inflammatory black eye.

*Operation.*—An operation is sometimes regarded as a cause of mental disorder and in the following series there are records of operations having been performed in remote and recent relation to the onset of the mental disorder.

Case 1 had had an operation for cervical adenitis at some indefinite time before admission.

Case 2 had had dental extractions for abscess at fifteen years of age, Case 4 had had an acute mastoid operation 16 years before admission, and Case 11 an appendicitis operation 12 years before, whilst Case 14 had had a nasal septal resection 11 years before. Case 28 had an operation for gastric ulcer 5 years before admission.

In more recent relationship Case 4 had had dental extractions two years before, whilst Case 24 had had a bilateral antral irrigation, removing "blood and pus," 2 months before admission.

Case 33, however, is the one whose history contains a definite link between an operation and the onset of the mental disorder. She had an operation for removal of "tuberculous" cervical adenitis in May, 1937, followed by ultra violet radiation treatment to stimulate healing. Objectively, it appeared that there now followed sleeplessness and "surmising," on and off for about three months, becoming worse during the last month preceding admission to mental hospital.

This case, however, shows that if operation was the cause of the breakdown then further operation assisted in recovery. However, there can be no doubt that it was not the operation which was the cause of the breakdown but the condition for which the operation was performed in a subject saturated with the toxæmia of the condition; so much so, that it was being excreted in the form of a blepharitis from the causal or mother focus, the diseased tonsils.

The first operation had not been extensive enough to remove all the infective tissues and moreover it had closed up a fistula which had acted as a partial septic leak.

This inadequacy of operation to deal with the pathological problem, which later is presented in another guise, that of mental symptoms, is also shown by Case 24, where tonsillar sepsis needed further operation for its eradication and the mental and physical recovery of the patient.

It is also shown by Case 4 whose co-operation did not enable her to attain the enhanced health that further operations for gross dental and gynaecological sepsis effected after admission to mental hospital.

A similar lack of co-operation, in fact refusal, with similar response to operation was shown by Case 27.

The first group of cases quoted above, with a remote relation to operation now have a significance, for they indicate these cases had conditions of sepsis, at these remote periods from admission to mental hospital, which persisted until treated by further operation in mental hospital.

This is true even for Case 14 whose operation was resection of nasal septum.

*Alcoholism.*—Case 8, presented on admission the popular appearance of an alcoholic, and he had been a barman, and he admitted alcoholic indulgence. He had a bloated aspect with dilated venules and pronounced blue cyanosis of the nose. As he was in a depressed state—down and almost out—it would have been easy to attribute his trouble to alcoholism and have adopted appropriate treatment. However, apart from the admission of the indulgence and his facial aspect, his mental symptoms and physical state were similar to any other case of psychosis caused by sepsis. Further, the popular conception of the causation of a blue nose is not a rhinological one, which regards it as the result of venous congestion from subjacent obstruction from nasal



disease. Sepsis in the head could also equally well explain the bloated aspect. The admission of alcoholic indulgence in excess might be part of his conception of unworthiness; or, alternatively, if he were already depressed and easily muddled, owing to sepsis, it might need but a little alcohol to produce an appearance of excessive alcoholism.

The decision as to what therapeutic measures to follow was assisted by the disclosure of oropharyngeal sepsis, which was not congestion due to alcoholism.

He was given the benefit of the removal and drainage of sepsis and a course of non-specific therapy. The result was mental amelioration and general physical improvement, the facial aspect ceased to be bloated and the blue cyanosis of July became a red cyanosis in December, thus showing an improved state.

In Case 28 the position as regards alcoholism was similar, although he had not a blue nose nor had he been a barman, but there was alcoholic heredity, and there was a history of alcoholism—and also one suggestive of sepsis. This latter view was confirmed by his almost edentulous state, which supported the report of lead poisoning. Given the benefit of the investigation for sepsis, closed sepsis was found and its treatment resulted in the demonstration that the psychotic state was not due to alcoholism.

It was quite clear that if this closed sepsis had not been dealt with the patient could quite well have continued to be regarded as an alcoholic; or, if he had improved sufficiently to be able to be discharged, it would not have been surprising if he had indulged in a pick-me-up and so justified the bad name he had unjustifiably acquired.

Case 31 also had an alcoholic heredity and was occasionally intemperate, but here also treatment of sepsis was followed by mental amelioration.

*Endocrine Insufficiency.*—Case 16 was at one phase of his mental illness treated for “glandular backwardness.”

The case description shows that sepsis and abnormal dental development were the causal conditions.

*Gastric Disturbances.*—Case 27 refused treatment for a gross pyorrhœa until on admission to mental hospital it was carried out. Gastritis had been present for at least a month. He had vomited many times and actually had to leave his work because he was frequently vomiting, and on account of the incapacity resulting from abdominal pain.

Case 28 had an operation for gastric ulcer 5 years before admission and during the year before admission had attacks of vomiting, “stomach trouble” and violent pain in stomach and chest. He had purulent tonsils and a closed empyema of the antrum. It is not surprising that the colon irrigation returns contained large patches of mucopus.

Case 37 said that following tonsillectomy she had not felt so sick in the morning and had a better appetite.

*Influenza.*—Whatever may be regarded as the causal agent of influenza, there can be no doubt about the debilitating effect of the clinical condition on the nervous system and its potency in causing mental disorder. Equally well known is its capacity to cause sinusitis. In 7 cases in the series it is given as an illness precedent to the mental disorder and in all these sepsis was present.

Case 24 was quite well until he was confined to bed with an attack of influenza for 2 or 3 weeks. Following this, came depression and his condition continued to deteriorate mentally and physically and eventually necessitated admission to mental hospital 9 months later.

In Case 34 there was a more rapid declension of mental capacity following an attack of influenza. This induced a hyperacute state of pathological fear and agitation which required admission to mental hospital within three months of the attack.



Case 3, certified at the age of 21, had had several attacks of influenza before commencing factory work in her early teens.

Cases 11, 17 and 20, similarly suffered from influenza.

Case 36 had had influenza attacks in the pandemic and epidemics associated with war and for 20 years continued to be unstable mentally. In all these cases sepsis was demonstrated in the head, situated, variably, in the mouth, nose and throat.

Thus, in Case 36, there was oral, tonsillar and sphenoidal sepsis.

*Colds and Catarrh.*—In 8 cases there is reference to colds and nasal catarrh precedent to their mental disorder.

Case 11 had “always been subject to head colds” and Cases 13 and 16 “had always been subject to colds in head and catarrh,” whilst Case 14, in addition to the foregoing, had had periodic asthma. Case 17 suffered from catarrh. Case 22 had had colds several times during the winter precedent to admission. The wife of Case 30 attributed his frequent colds to his work of a labourer. The only unusual event in the health of Case 35 was a “cold” and this was followed by a confused state and her second admission.

*Sore Throat.*—Cases 3, 19, 20 and 31 had histories of sore throats.

*Tonsillitis.*—Case 10 had had acute tonsillitis in the month preceding admission, whilst Case 11 had had an acute exacerbation 2 years before. Both had chronic tonsillitis on admission.

*Scarlet Fever.*—Case 38 had had scarlet fever after confinement four months prior to admission to mental hospital.

In several of the cases mentioned above, high titres were found in the blood of antibodies to the dysentery organisms. Reference is made to this under the heading of “Dysentery,” in relation to the “cold” of Case 35.

In all the foregoing cases chronic septic conditions were found in the head and treated.

#### *Some Symptoms of Mental Disorder.*

*Insomnia.*—Although undoubtedly present in a larger number of cases in the series, this symptom is referred to in the case descriptions of Cases 20, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 39.

In some cases, as in Cases 20, 24 and 34, this symptom appeared with other symptoms such as headaches in relation to an acute illness such as influenza.

In other cases it developed as part of the symptomatology of the chronic infective process. In Case 27 insomnia was only pronounced for two months before admission, whereas Case 29 had been a poor sleeper for years and her sleeplessness was worse in relation to catamenia, consequently when epimenorrhœa occurred this became one of the many serious symptoms.

Other cases where headaches were associated, and to some extent responsible for the insomnia, were Cases 30, 31 and 35. If Case 32 did get to sleep she woke up suddenly, trembling, and medicine failed to relieve her condition.

In Case 8 bromide had been given for insomnia but as a result of the effect of colon irrigations and treatment of oral sepsis this was no longer required.

In Case 33 insomnia appeared following the removal of cervical glands and became worse.

In Case 37 insomnia appears to be related to the infantile hypertrophied septic tonsils disturbing, probably mechanically, breathing in the recumbent position. In these cases treatment of septic disease in the head was followed by satisfactory sleep. Case 36 said he had slept better since tonsillectomy; the tonsils here were small, buried and purulent and were removed a week after drainage of an empyematous right sphenoidal sinus, so it is probable that both operations contributed to the cessation of insomnia.



*Self Injury.*—Twelve cases out of the 39 of the series threatened or attempted self-injury.

This self-injury was directed to the eye, in two cases, 21 and 39. In Case 21 there were several, apparently purposive, attempts to injure the left eye, but failing on each occasion to do serious harm and more likely to be successful by repeated damage. However, after drainage of a sphenoidal empyema, these attempts ceased.

In contrast to the repeated minor interferences of Case 21, Case 39 was sudden and swift in her one successful unheralded attempt to avulse her eye. Her statement—"If thine eye offend thee, pluck it out"—suggests a sudden neuralgic attack referred to the eye or the back of the eyeball from the underlying grossly diseased antrum. Usually an action of this severity is set in train by an intense sensory disturbance or perceived as such, owing to liminal reduction from toxæmia, in the case of less severe pain, in the cortex. However, following the treatment of septic disease, especially the gross antral disease, there have been no further attempts at self-injury. In the remaining cases the contemplated or attempted self-injury has been suicidal in intent.

Case 4 after 16 years of general ill-health threatened suicide and certification became necessary.

Case 6 said life was not worth living and wanted to poison himself.

Case 11 threatened to poison himself and was considered to be actively suicidal. Case 12 attempted suicide by gas poisoning.

Case 17 had attempted suicide after childbirth. Case 20 was considered to have suicidal tendencies. Case 23 had made references to suicide. Case 30 proposed a suicide pact to his wife and Case 31 was obsessed with the idea of death and was regarded as liable to suicide. Case 36 threatened suicide.

These details have been extracted from the case descriptions in order to emphasize the point that in all these cases serious cephalic sepsis, causing internal discomfort and poisoning, was present and after its treatment there were no further suicidal attempts. In fact they all said that life was worth living, as well as other cases who had been similarly treated, e.g. Case 37, but who had not evinced any suicidal tendencies.

*Manifestations of Endogenous Fear—Anger Reactions.*—Several cases illustrated the passive reaction of endogenously evoked fear, whilst others exhibited the active, anger, aggressive and homicidal conduct. Variation from one type of reaction to the other is recorded, e.g., in Case 1, who in the early stages was sulky and cheeky alternately.

*Attitude and Conduct of Fear.*—Case 10 became fearful following tonsillitis and colitis.

In Case 14 the endogenously evoked fear acquired an intellectual covering and he became deluded that he was to lose his job and that he was suffering from incurable syphilis contracted from his wife.

Case 16 showed alternating reactions of fear and anger; he made written statements of a plot against his family. Even bolted his bedroom door. Then showed a claustrophobia, displaying an excessive desire to be out in the open.

Case 23 manifested Acute Fear to Terror with auditory hallucinations. This subsided following nasal sinus drainage, but relapsed when drainage again became defective owing to polypoid growth.

In contrast to Case 23, the next case, 24, exhibited a low grade Fear in the sphere of sex.

In Case 26 the grossly septic state of his mouth induced endogenous Fear which prevented him seeking treatment for it.

Case 28 exhibited acute Fear. On admission, apparently he was quite convinced he was to be killed.

Case 33 eventually developed a state of acute Fear and became uncontrollable.



Case 34 was another example of Acute Fear following influenza. Here the patient held closely to the idea that her Fearful state was the result of an error she had committed and no amount of psychotherapy could change her viewpoint.

Reduction in the motor manifestations of agitation followed treatment of very occult sepsis but self control only appeared during a course of insulin treatment.

*Homicidal and Aggressive Conduct.*—A few cases in the series may be quoted to illustrate the effect on conduct of the late stages of septic irritative disease.

Case 1 showed the early stages of Fear-Anger reactions in sulkiness and cheekiness alternately, and later displayed unnecessary anger and was impulsively homicidal and destructive to clothing.

Case 6 exhibited occasional attacks of impulsive violence.

Case 15 became bad tempered, struck his mother and became obsessed by, and on admission could only talk, albeit incoherently, "football."

Case 22 attacked his mother.

Case 29, normally a calm, pleasant, and intelligent woman, became very aggressive during the last six weeks prior to admission and more so during the last fortnight, wanting to strangle people she had previously held in high esteem.

Case 33 on gaining strength following treatment of sepsis passed through an angry aggressive phase, which however subsided during insulin treatment.

Case 36 threatened to kill and attempted violence to his wife.

Following treatment of sepsis these passive and active manifestations of the Fear-Anger reaction subsided and their relatives were quite satisfied with their state.

Case 35 was another example of alternation of Fear and Anger. Fear was predominant on the first but anger on the second admission.

Case 37 exhibited a low-grade fearful state on admission but as she became stronger following treatment of sepsis she displayed temporarily, and especially in relation to menstruation, a noisy quarrelsome conduct before and during, but a more amiable state afterwards.

*Sex Ideas and Conduct.*—There are 9 cases in the series where reference is made to certain symptoms including delusions pertaining to sex ideas and conduct.

Case 14 was sure that he was suffering from incurable syphilis contracted from his wife.

Case 16 was a science teacher, but, associated with a developing muddle-headedness and impulsiveness, he spent an increasing amount of, and eventually all, his time reading books on sex psychology, to the complete neglect of his proper work. His people considered that this inordinate desire to study sex psychology resulted in the development of auditory and visual hallucinations and the psychotic state which necessitated admission.

However, following treatment of cephalic sepsis he passed through the stage of admitting he had got out of his depth in these studies, but returned to them when given the opportunity (before completion of treatment of sepsis), then with further treatment he lost interest therein, and finally it was observed that after removal of impacted wisdom teeth, he was no longer attracted by a former female patient.

Case 18, in a state of confusion, following childbirth, used obscene sex language but on mental and physical recovery following removal of sepsis in the head this symptom ceased to be displayed.

Case 24, with general evidence of the toxic and focal action of oronasopharyngeal sepsis, exhibited fear, manifested in the sex sphere, by his proclamation of his wife's infidelity. This and the other physical and mental manifestations of the toxæmia of sepsis cleared away following removal of diseased teeth and tonsils.



Case 27 was emphatic in his refusal to have extraction treatment for gross dental sepsis and was equally emphatic in proclaiming his wife's infidelity, but following the treatment of this sepsis in mental hospital these ideas disappeared and he, like Cases 14 and 24, declaring they were erroneous, displayed a normal attitude to his wife.

Case 29 who was suffering from an epimenorrhœa and a septic condition of the mouth and throat, developed at the age of 47 a state of fear and confusion and exhibited suspicion and sex obscenity, both verbally and by writing letters to her husband's employer. This obscenity continued, after admission to mental hospital, but ceased completely after removal of grossly pyorrhœic teeth and a course of prontosil.

Case 30 during the agony of his depression and fear uttered the idea that he had developed into a woman, but with the return of physical and mental vitality following the removal of gross sepsis in mouth, tonsils, nasal sinuses and bowel, this idea ceased to obtrude itself and he was unable on recovery to explain how it arose or what it meant to him.

Case 32, although the menopause had occurred 2 years before, nevertheless in the state of fear, due to intestinal infection, imagined she was pregnant.

Case 3 had been married only a month but developed depression followed by confusion. The treatment of her septic state, however, restored her to normality and an increase in weight of 2 stones.

#### CONDITIONS OF PHYSICAL DISEASE FOUND ON ADMISSION.

##### *Diseased and Abnormal Conditions of the Teeth and Gums.*

*Abnormal conditions of Teeth.*—Maleruption of third molars and canines. The case descriptions which follow contain references to the finding of malerupted teeth in 10 cases out of the 39 in the series. In 8 these referred to third molars and in 2 cases to canine teeth. The sex distribution of these cases is 3 females and 7 males. The 2 canine teeth cases were male.

The ages of the patients when these conditions came under notice, and then were considered as having an irritant and, or, toxi-infective action, were in relation to the wisdom teeth, 16, 17, 19, 21, 22, 23, 25 and 28, and to the canine teeth, 27 and 35, years.

In 4 cases, all the females and 1 male, the unerupted wisdom teeth were single teeth, Cases 1, 2, 3 and 13.

In 2 male cases, Cases 16 and 30, both lower wisdoms were unerupted, seriously impacted and with purulent sacs surrounding them.

In 2 male cases, Cases 15 and 25, all 4 wisdom teeth were unerupted and impacted.

The canine teeth which were unerupted, Cases 10 and 22, were in both cases the right upper tooth.

In relation to all these cases, on admission, there was evidence of the association, with these conditions of dental maleruption, of tonsillar, dental, and in some cases nasal sinus septic disease.

This association has been recorded in this report on a previous occasion and the pronounced severity of these conditions points to the patient having, probably in the pre-adolescent period, had a very serious infection which crippled the growth of the wisdom teeth, affected the nutrition of the erupted teeth and left unresolved residua in the tonsils to maintain the chronic infective disease.

This association was especially striking in Cases 15 and 25, aged 17 and 16 respectively. Here all 4 wisdoms were involved and other teeth were carious and septic and tonsils septic or purulent with abscess.

In Case 15 there was the evidence that frontal headaches, which had first appeared after the sixteenth birthday, only disappeared after the removal of all these malerupted and ill formed wisdom teeth.



The result of leaving these malerupted teeth in the hope they will right themselves is illustrated by Cases 16 and 30. These patients reached the ages of 25 and 28, but the teeth were still unerupted and impacted.

*Diseased Teeth.*—In five patients, Cases 10, 23, 24, 32 and 33, out of the 39 whose case descriptions follow, the jaws were edentulous. In all the remaining 34 cases diseased, apart from abnormal, conditions were found in the teeth. These conditions of disease included broken, carious, buried and filled dental elements together with various degrees of periodontitis including those with gross purulent discharges, chronic abscess with sinus, periapical granuloma and root exposure.

*Relation to other Cephalic Sepsis.*—A study of these cases shows that in practically all these cases there were also present diseased tonsils. There can be little doubt that there is a pathological relationship between diseased conditions in these adjoining areas. In many of these cases there is also evidence of the presence of antral disease—here a close anatomical relationship exists to explain the association of disease in adjoining tissues. This explanation is not so obvious in relation to diseased conditions of the sphenoidal sinus until it is appreciated that the sphenoidal sinus lies near to all the branches of the fifth nerve and that infection may track between the teeth and the sinus, by the sheath of the inferior maxillary division centripetally and centrifugally.

The admission therefore that dental sepsis is or has been present in a case furnishes strong evidence that that sepsis is not the only sepsis present in the head. From the evidence of reports of dental sepsis in cases of mental disorder, confirmed by such cases arriving here from elsewhere, the conclusion is made that the incidence of sinus and tonsillar disease in mental disorder reported by some writers is not based on really complete investigation.

*Sessional Treatment and the Exacerbation Reaction.*—In order to mitigate the exacerbation reaction, where extensive sepsis is present, extractions are limited to only a few at each session. Thus in Case 11, 25 diseased teeth were removed at five sessions.

In Case 19 the extraction of carious and filled teeth was spread over seven sessions.

In Case 30, 16 carious, septic and impacted teeth were extracted in three sessions.

In Case 31, 30 dental elements were removed in 8 sessions because of the severity of the sepsis and the poverty of her general condition.

*Buried Roots.*—In Cases 1, 28, 29, 34 and 39, buried roots are recorded as having been found and removed. In one case, Case 29, it proved difficult to effect localization, but after removal of purulent tonsils the root previously not visible soon appeared in the gum and extraction was easy. This shows the relation of diseased tonsils and teeth.

### *Conservation of Teeth.*

(a) *By the Patient and Relatives.*—Case 4 had been conserving her diseased teeth against medical advice for at least three years before admission, with increasing neuritis and general physical disorders culminating in a mental breakdown; which had all the characteristics of chronicity. After removal of dental disease headaches and neuritis ceased coupled with physical and mental improvement and followed by discharge from hospital. In Case 5, the relatives refused to allow removal of grossly diseased teeth and delayed this treatment, without improving the patient's state, so necessary even preparatory to antisypilitic measures. Later, on second admission they gladly consented to all treatment. In Case 12, refusal by relatives to permit the removal of septic teeth was continued for seven months, during which no improvement occurred. Case 27 had conserved his teeth, although they had been grossly septic for many years, against his doctor's advice. He had had



toothaches for five years and the gums were bleeding. Gastritis had developed from the irritating discharges causing vomiting. Fourteen teeth were extracted in the first month after admission and his mental state thereafter consistently improved.

(b) *By the Dental Surgeon.*—In Case 6, antiscarlet streptococcal serum was used in an attempt to counteract the dental sepsis and effect dental conservation, but later ten teeth had to be removed.

In Case 13 the lower incisors had been conserved after the restricted, but urgent treatment carried out on admission, but later their condition was such that extraction had to be carried out.

In Case 34 dental treatment was limited to the extraction of two septic elements, but later, after radiography, other teeth had to be removed.

In Case 37 conservation was practised and prontosil was employed, but whilst the agent appeared of value in other directions it was later considered that extractions were necessary.

*Ear, Nose and Throat Department.*—Honorary Consulting Surgeons Mr. E. Musgrave Woodman, M.S., F.R.C.S., and Mr. W. Stirk Adams, Ch.B., F.R.C.S. Visiting Surgeon, Mr. Reginald Stanley Strang, Ch.B., D.L.O., F.R.C.S.

*Incidence and Treatment of Disease.*—During 1937 the visiting ear, nose and throat surgeon investigated 249 cases, 125 males and 124 females. Of these in 24 cases, 9 men and 15 women, the conditions found did not warrant further procedure than that of thorough antiseptic irrigation of the nasal sinuses explored. Six of these, three males and three females were antral investigation only.

In the remaining 225 cases, the following conditions were found.

*Disease of Lymphoid Tissue of Waldeyer's Ring.*—Diseased tonsils were found in 94 women and 89 men, a total of 183 persons out of the 249 cases, and were removed in 180 instances. Of these cases, in 124 patients, in 55 men and 69 women, only the tonsils were found diseased, whilst in 37 men and 19 women, total 56, the tonsillar sepsis was associated with sinus disease.

In 2 males and 2 females adenoids were found and removed.

*Disease of the Nasal Sinuses.*—Clinically diseased conditions of the nasal sinuses were found in 59 men and 39 women, a total of 98 cases.

The sinuses alone were affected in 22 men and 20 women, a total of 42 cases. As in former years the more common condition was to find the tonsils involved in association with sinus disease and this obtained in 37 men and 19 women, a total of 56 cases.

*Number of Diseased Sinuses found in Individual Cases.*—The number of diseased sinuses found in individual cases is set out in the following table—

Cases with				Male.	Female.	Total.
One sinus only involved in	...	...	...	27	14	41
Two sinuses involved in	...	...	...	20	14	34
Three sinuses involved in	...	...	...	3	4	7
Four sinuses involved in	...	...	...	5	4	9
Five sinuses involved in	...	...	...	—	—	—
Six sinuses involved in	...	...	...	4	3	7
Total	...	...	...	59	39	98

*Anatomical Distribution of the Sinus Disease.*—The distribution of the sinusitis, whether associated or not with tonsillar disease in these 98 cases was :—

				Male.	Female.	Total.
Antra alone or with others	...	...	...	39	28	67
Ethmoids alone or with others	...	...	...	25	21	46
Sphenoids alone or with others	...	...	...	20	13	33



The percentage incidence amongst the affected cases was antra involved in 68 per cent., ethmoids in 47 per cent. and sphenoids in 34 per cent.

Nasal Polypi were found in eight males and two females, a total of ten.

*Disease of the Ear.*—In a number of cases chronic ear disease has been found in the new admissions and in a few cases acute otitis media has developed. In two cases acute mastoiditis developed and was operated on.

*Diseased Conditions of the Nasal Sinuses : Anomalous Indications.*

In the following series are some cases illustrating the summary of findings of Nasal Sinus disease.

In 24 of these cases, which were explored by the Watson-Williams' suction-exploration technique, diseased conditions were found in 15, whilst in an additional case, Case 24, pus is reported as having been washed out of the antra before admission. The diseased findings varied from a thickened membrane, catarrhal inflammation, more haemorrhagic than the normal condition, affecting a single sinus, to pus of varying consistency and amount, involving one or more cavities.

Case 34 is an example of the first type whilst Case 6 was an example of the more extensive disease. In Case 6 a retrobulbar optic neuritis was secondary to a pansinusitis which passed through the stages of a catarrhal inflammation to one in which there was mucopurulent or purulent exudate in all the sinuses. In this case the first indication obtained—unusual in a case of mental disorder—was that of tenderness on pressure over the antrum.

Case 16 presented a multisinusitis—the right antrum in a state of catarrhal inflammation and both sphenoids purulent.

In Case 9 both antra and the left ethmoid were purulent, and in Case 5 pus was found in the right sphenoid and left antrum.

In Case 39 the left antrum and the right ethmoid were purulent.

In the remaining cases the diseased conditions were confined to individual sinuses.

In Cases 2, 21, 34 and 36 the sphenoidal sinus was singly affected and in all these 4 the diseased condition was on the right side. All contained pus, Case 21 had thick pus, except Case 34, in which the membrane was thickened in a state of catarrhal inflammation.

The series does not afford an instance in which the ethmoids were alone involved.

The largest number of cases where only one kind of sinus was involved was in those cases where the antra were diseased. In four cases one antrum was solely affected, viz., Cases 8, 19, 28 and 30, two right and two left, while in two other cases, 22 and 23, both antra were diseased. In these diseased antral cavities the conditions varied from general or localized catarrhal inflammations, as in Case 8, to a flaky purulent haemorrhagic exudate as in Case 22, to a liquid purulent exudate as in Cases 19 and 23, to thick pus, as in Case 30.

*Polypi in Nasal Passages and Nasal Sinuses.*—In four cases mention is made of the presence of polypi in these situations.

In Case 12, although there was no evidence of exudate in the sinuses, ethmoidal polypi were present on the right side.

In Case 23 there were polypi in the nasal passages on both sides, originating from the ethmoid.

In Case 39 there were polypoid masses interspersed in the pus in the left antrum.

In Case 36 the right sphenoid contained flaky pus and a small polypus on the anterior wall of the cavity. It is easy to understand that this polypus, varying in size as these diseased conditions do, might on some occasions expand, obliterate the sinus ostium and thus cause, wholly or in part, the severe headaches this case experienced.



*Anomalous Indications in Relation to the Nasal Sinus Disease.*—Some writers, who have reported on the incidence of sinus disease amongst cases of mental disorder, have obtained figures very much lower than those which have been reported from this hospital; but, as far as can be made out from their reports, they have not followed the same procedure in all their cases as they have in some of them, and as has been followed in all the cases reported from here. From their reports it would appear that relatively few of their cases have received the suction-exploration technique of Watson-Williams, whilst all the cases reported from here have had the benefit of this technique.

The diagnosis of sinus disease by these writers has been made on inspection, transillumination and other methods, which fall short of the suction-exploration technique, in the majority of their cases, and only in a few has this suction technique been employed. Yet in the reports the findings from both procedures are combined. To compare these unlikes is an erroneous procedure. For mentally disordered patients, where co-operation is generally not obtained—in fact where resistiveness is frequent—the suction-exploration method of investigation is not only the best but is a necessity and a completely justifiable procedure. That reliance cannot be placed on the usual indications of inspection and transillumination in cases of mental disorder is inherent in the problem to be dealt with. Closed sepsis is frequently the essence of the diseased process in mental disorder, and “closed” is not “freely discharging,” and therefore visible as patently obvious in the nasal passages on inspection.

Case 34 gave no indication by discharge in the nasal passages of the existence of the catarrhal right sphenoid. It was at the request of this reporter that the suction-exploration procedure took place.

In Case 28 no pus was seen in the nasal passages, although the mucosa of the right inferior turbinate was oedematous, both antra were black but pus was thick in the right antrum.

In Case 37 there was oedema of both middle and both inferior turbinates but there was no evidence on suction-exploration of disease in the sinus cavities.

In Case 6 the indications were a dim right antrum, tender on pressure but a washout limited to that antrum would have missed the remaining pan-sinusitis.

In Case 16 the indications were for a right antral washout, it was later, owing to persistence of symptoms and not because of nasal indications, that a full sinus examination was made and the sphenoids both found to be empyematous.

Transillumination is unreliable. In the present series some striking examples where anomalous and misleading indications occurred are now considered. These show that, short of using the suction-technique, accurate diagnosis would have been impossible and treatment futile. Whilst the finding of pus in an antrum black on transillumination is a satisfactory finding, it does not always obtain. In Cases 21 and 33 both antra were black but devoid of exudate. In Case 28 both were black but in only one was there pus. In Case 17 the right antrum was dim and the left was black, but all sinuses on exploration were devoid of exudate. Case 9 is an excellent example of closed sepsis: the left antrum was dim and the right black, but exploration found thick inspissated pus in the dim left antrum and flakes of pus in the black right antrum; here no pus was visible in the nasal passages but both inferior turbinates were oedematous and it was this oedematous mucosa which was responsible for the film of mucopus seen in the right nostril. In this case, where there was such a striking contrast on transillumination, investigation limited to the black right antrum would have been an incomplete examination.

It is in Case 39, where the patient unwittingly but so very emphatically attempted an exploration herself by avulsing the eye on the side of the disease, that these anomalous indications reach the maximum. Seen before the avulsion there were mucous streaks in both nostrils and extensive mucopus



in the post nasal spaces. On transillumination the right antrum was black, the left was clear. Both frontals were clear. Yet, after avulsion, suction-exploration found the right antrum to be clear and the left to contain thick pus and a polypoid membrane; further, the cavity was later found to be divided by a shelf into two, and a Caldwell Luc operation was needed to deal with the conditions effectively.

A suction-exploration limited to the right black antrum would have failed to explain the patient's antagonism to the left eye and her remark "If thine eye offend thee, pluck it out," would have lacked the appreciation that her action was determined by referred pain from sinus disease immediately adjoining the traumatized eye socket.

#### *Diseased Conditions of the Ear and Mastoid.*

*Acute Otitis and Mastoiditis.*—In two cases, 16 and 22, right and left, respectively, acute otitis media and cortical mastoiditis developed during the course of treatment. With the history of "colds" and nasal catarrh, and the presence of extensive sepsis in the mouth, nose and throat in both cases it is not surprising that such should be the case, and especially in Case 16 who experienced auditory hallucinations founded on tinnitus aurium. These observations suggest that the chronic inflammatory process had probably, prior to admission, permeated to the ear, and this was confirmed by the presence of granulation tissue in the mastoid cells at operation in Case 16. In Case 22 pus was found throughout the mastoid cells.

In Case 16 the granulation process had extended to the cells surrounding the lateral sinus and ligation of the internal jugular vein was necessary. After this mental and physical improvement continued and especially did a persistent tinnitus, previously referred to the diseased ear, cease.

This tinnitus had not ceased previously following incision of the right drum for evacuation of pus from the middle ear.

In Case 22 following the mastoid operation an improvement in the mental condition was observed.

In both cases, as previously to the mastoid operation other septic conditions had been treated, healing uneventfully followed the mastoid drainage.

In Case 4 there is a history of a radical operation for acute left mastoid and three months later certification and admission to mental hospital took place.

*Chronic Otitis Media.*—In Case 1 the drum of the left ear showed great retraction, whilst the right was normal.

In Case 3 there was an old perforation of the right drum.

Case 23 had retracted, fixed drums and Case 30 had thickened retracted drums.

In Case 33 the right drum was retracted, greatly thickened, a state of old healed otitis media, and in the left drum there was a dry central perforation. In this case there were auditory hallucinations founded on tinnitus aurium.

In Case 37 both drums were retracted and scarred posteriorly, the left was greatly thickened. Auditory hallucinations were present here. In these cases there was also sepsis in the mouth, nose and throat.

#### *Conditions of Disease and Injury of the Eyeball and Conjunctiva.*

There are five cases in the series which are all of importance in relation to ophthalmic conditions in cases of mental disorder. In Case 6 retrobulbar optic neuritis on the right side was found, entirely as a result of routine ophthalmological examination by the visiting specialist. As will be seen the condition of the patient was such that no verbal indication whatever could have been obtained from him in any way suggesting the existence



of the neuritis or of its causal pansinusitis. The finding of the optic neuritis led to a search for its cause, and here the indications were anomalous for local sinus disease, if judged only on such an exudate as pus. What was present in the right antrum was a thickened "catarrhal," membrane which, being more vascularised, bled more easily.

Treatment of the pansinusitis was followed by disappearance of the optic neuritis and amelioration of the physical and mental state. In this case there was no assault on the eye by the patient. In Case 16 swelling of the right side of the face and contiguous portion of the nose with mild conjunctivitis of the right eye developed. Two and a half months before the antrum on that side had been washed out and found to contain only a little mucus. This swelling subsided, but a month later a second attack of right conjunctivitis developed. This led to a full sinus investigation, pus was found in both sphenoids and they and a black right antrum were drained. There were thereafter no further attacks of facial swelling or conjunctivitis.

In this case there was no assault on the eye by the patient. In Case 21 a blow by another patient to the left eye caused a discoloration round it and later recurrent attacks of conjunctivitis occurred, which might be considered related to this trauma or that caused by himself. To irritate or assault his eye might be regarded as a mannerism, and the simulation of an oculo-gyric crisis might lend support for that view. Prontosil had no favourable influence on the conditions, local or general, and he was incapable of saying why he attacked the eye. Inspection of the nasal passages gave no suggestion of sinus disease but although the antra were black on transillumination a suction investigation limited to them would have been valueless. However, a full Watson-Williams' suction-exploration was made, thick pus was found in the right sphenoid and following its drainage there has been a cessation of assaults on the eye, the local tissues improved in consequence and the mental state showed some amelioration. It is possible that, although it was a right sphenoid and not a left in which pus was found, it may be a case where anatomical irregularities are responsible for the anomalous findings. If the exploration had been limited to the side of the affected eye it would have had negative results.

Case 33 on admission had bilateral chronic blepharitis and slight injection of conjunctivae, but later in the left eye there was a severe exacerbation of the condition, which developed in the premenstrual phase and was due to the focal effect of the menstrual hormones on the chronically diseased tissues. The condition in this exacerbation was so extensive that the associated venous congestion produced a bruised appearance suggestive of a black eye. This condition cleared in the post-menstrual phase.

The purulent tonsils were now removed in this phase. During the next premenstrual phase—although menstruation was missed—a similar exacerbation appeared in the right eye, but without the black eye effect, and this subsided in the following post-menstrual phase. Thereafter the menses were regular and no further ophthalmic exacerbation occurred.

Case 39 is the most dramatic of these cases and, as it will again be referred to under Self-injury, no further comment is required here except to remark that, unlike Case 21, there had been no premonitory indications of an attack on the eye and no appearance of local disease.

These two, Cases 21 and 39, point to the importance of recognizing any indication of interference with the eye as a reflex movement due to pain from underlying disease and not as a purposive act of a healthy person only suffering from mental disorder. Ophthalmologists recognize that in children and even in adults any tendency thus to interfere with the eye is probably the reaction to referred pain from underlying disease.

As examples of the necessarily routine work of the ophthalmologist in another direction is the correction of refractive errors, as in Cases 30 and 33.



*Diseased Conditions of Lymphoid Tissues in Head and Neck.*

*Tonsillar Disease.*—In 32 cases out of 39 the tonsils were regarded as sufficiently diseased to warrant removal by dissection and this was carried out.

In 14 cases exposition of the tonsils disclosed their content of free pus, in several cases running, liquid pus.

Here the condition of the diseased state would vary between closed and open sepsis, a state of deficient to defective drainage. Where a partial escape was possible, an exacerbation of the chronic inflammation would result in discharge of pus becoming more, perhaps wholly, impeded. In Case 18 not only were they purulent but also oedematous.

In 3 cases unrelieved closed sepsis was present; in Case 5 a large abscess was present in the left upper pole; in Case 17 a quinsy was present and in Case 25 there was a large intratonsillar abscess.

In 19 cases the conditions found were those of chronic tonsillitis; where infection was not predominantly caused by pyogenic organisms or where the capacity to respond by pus production had ceased, and others where fibrous processes producing buried and adherent conditions were also present.

In 3 cases the tonsils appeared free from gross disease, especially in Case 27 they were considered healthy.

In Case 32 infected tonsils on admission improved so much after the patient had had continuous colon irrigation that, seen later, they were found to have no gross infection. A condition of open sepsis.

*Pharyngeal Disease.*—In a number of cases in the history there is a report of sore throats and in the majority of the cases of nasal sinus disease there is evidence of Pharyngeal inflammation in the acute, subacute or chronic forms. These conditions are the inevitable sequel to the flow of discharges over the upper surface of the soft palate. Under these conditions the soft palate may even be grossly oedematous and the posterior pillars of the fauces and lateral bands severely swollen and fleshy in appearance. The more the nasal sinus sepsis becomes "closed" the less discharges flow over the pharynx and the less the pharynx shows acute conditions. An example is Case 23 who before drainage of diseased nasal sinuses showed no acute changes in the pharynx, and the posterior nasal spaces were clear, but after their drainage he developed an inflammatory condition which resulted in pharyngeal abscess, this later healed.

Lesser degrees of acuity of pharyngeal disease are referred to in Cases 33, 34, 35 and 37.

Exacerbation of chronic pharyngitis may also be associated and caused by septic oral and tonsillar septic conditions.

In Case 29 there was some chronic pharyngitis which showed an acute exacerbation, accompanied by a similar exacerbation in the tonsillar sepsis, 3 weeks after completion of extractions for severe pyorrhoea in the lower jaw, and hardly attributable to that procedure, with pyrexia. Streptococci and staphylococci were present. The condition remitted following prontosil treatment.

In relation to chronic tonsillar sepsis both the lateral pharyngeal bands of Case 33 were enlarged.

*Lymphadenitis.*—Inflammation of the superficial glands of neck is relatively rare in clean newly admitted cases of mental disorder and in the present series reference to lymphadenitis is confined to 3 cases.

In Case 1 there was an abscess scar in the right anterior triangle of the neck from a possible tuberculous gland, but no lymph glands were enlarged. There was a strong tubercular family history and a grossly septic condition present in the patient. Treatment of the latter however did not cause the appearance of a lymphadenitis either on the first or second admission.

In Case 29, however, there was no evidence of present or past cervical lymphadenitis on admission, but there was gross sepsis in the lower jaw, tonsils and nose. Six weeks after the removal of the dental sepsis (and healing



of the jaws), in early October there was an acute lymphadenitis, sudden in development with pyrexia, in relation to the right sternomastoid. This gradually subsided and did not reappear on removal by dissection of purulent tonsils in early January.

In Case 33 there were bilateral scars of operation for "tuberculous" cervical adenitis, performed 4 months before admission. This adenitis had been in existence for 13 years, and objectively it appeared that the mental illness became obvious following that operation. Investigation found purulent tonsils. They were removed, but there was no reappearance of lymphadenitis.

#### *Sensory Disturbances Present on Admission.*

*General Considerations.*—In a number of the cases in the series there were several sensory disturbances, which may have appeared at different phases of the illness, in other cases there may have been none, or only one disturbance.

Case 22 is an example where there was only one disturbance, that of caecogeusia, although he had sepsis of the sphenoidal sinuses, ear and mastoid, tonsils and teeth and this symptom he had had for three months before admission. This symptom disappeared after treatment of the septic disease.

On the other hand Case 23 had several sensory disturbances in very acute form. The victim of a pansinusitis, with diseased tonsils, the sinus conditions were the subject of their usual pathological exacerbations and with these there were the corresponding mental and sensory symptom exacerbations.

An interesting point—the absence on a second admission of the sensory disturbances observed on the first admission to mental hospital, supports the peripheral origin of these sensory disturbances.

Case 35 on first admission had had severe bifrontal headaches, auditory hallucinations, based on unilateral, passing to bilateral, tinnitus, and caecosmia. These all ceased following the treatment of septic disease.

On her second admission two years after discharge there was caecogeusia but not caecosmia, neither auditory hallucinations nor tinnitus, and the headaches were different. Instead of the severe constant headaches she only experienced premenstrual headaches.

Case 33 is an example of unilaterality of several sensory disturbances which can be correlated with an ipsilateral pathological condition. The lymphadenitis had been worse on the right side and later discharged on the right side, for 18 months. She had had for a long time right frontal premenstrual headaches and later appeared in the right ear to be succeeded by "voices." These conditions subsided on removal of the diseased tonsils. Although there was no observed difference between the two tonsils it is probable that on the right side the pathological process arising from them had reached a wider field than on the left. The ears both showed evidences of chronic otitis media, the left drum had a central dry perforation which the right had not.

In Case 30 there was, by contrast with the preceding, a left frontal throbbing headache and left tinnitus aurium associated with an empyema of the left antrum.

All these symptoms disappeared after treatment of the septic state.

#### *Disturbances of Common Sensation.*

*Parietal: Headaches and Pains.*—Whilst in some cases with cephalic sepsis there may be no headaches or pains as in Case 22, who had dental maleruption and sepsis, tonsillar and mastoid septic disease and bilateral purulent sphenoidal sinusitis, yet in a large number of cases in the series there is reference to parietal disturbances of common sensation, both in the histories and in the symptoms noted following admission. In some cases these are



recognized by the patient whilst in the psychotic state, in others they are only described after recovery, but may be referred to in delusional language during the illness, e.g. as "electricity" in Case 36, or only shown in conduct reactions as in Case 21. The Distribution of these disturbances of common sensation in these cases may be classified as:

(a) Local, as in Case 27, who had toothaches for five years; Case 16, with otitis media, complained of pain in the ear; and Case 6 who displayed evidence of pain on pressure over an antrum.

(b) Regional, as in Case 16, who stated on recovery, but not before, that an irritation present in the lower jaw for some months had disappeared after removal of lower wisdom teeth.

(c) Referred, as in several cases where the pain was referred to frontal, vertical, occipital regions. This may be unilateral, as in Case 30, where a left headache was associated with an empyema of the left antrum; or principally unilateral, as in Case 23 when, although there was a pansinusitis, the headaches were mainly supraorbital and on the right side; as in Case 36 who had a right sphenoidal polypoid empyema with dental and tonsillar sepsis and whose headaches were a dull frontal ache worse on the right side; and as in Case 33 where right frontal headache, premenstrual, was removed by the dissection of both purulent tonsils; or bilateral as in Case 35 who experienced equal heavy bifrontal pains over the eyes which ceased after removal of diseased teeth and purulent tonsils. Case 28 had severe occipital headaches which ceased after removal of septic tonsils and drainage of an empyematous right antrum.

(d) Diffuse, where a generalized headache may spread to the neck, and even to the arm as in Case 4.

The duration of these headaches and pains varies in these cases in the series from many years to only a few days before admission.

In Case 36 the patient admitted to mental hospital in 1937 had had headaches and pains following influenza in 1918 and three subsequent attacks of influenza.

Case 38 for ten years had headaches with her periods, but after treatment of septic disease her two periods prior to discharge had been free from headaches.

Case 30 had had headaches for nearly two years before admission to mental hospital.

Case 29 had had headaches for years, on and off, for a week before each period, but when she became confused in the early stages of her mental illness, the headaches vanished as such.

In Case 24 headaches had been present from September until the following June when he was admitted to mental hospital.

Case 20 suffered from headaches and in February complained of heaviness and pains on the top of her head which continued until admission in October following.

Case 5 had had severe pains in head for four months before admission.

The causal diseased condition of the headache can be traced in some cases with fair accuracy following treatment of sepsis.

Dental causation appears to be responsible for the cephalalgia in Cases 4, 10, 15, 16. In Case 10 headaches ceased after removal of an unerupted canine tooth, and in Case 15 severe right frontal headaches of a year's duration ceased after extraction of unerupted impacted wisdom teeth.

Among tonsillar causes are Cases 17 and 20.

In Case 17 her head felt lighter after removal of diseased tonsils and in Case 20 a heavy pressure on top of head and vertex pains were relieved by tonsillectomy.

Among causes attributable to sinusitis are Cases 21, 23, 30 and 36. Although Case 21 never complained of pain in the left eye, it would appear



probably that the conduct reaction of assaulting the eye was determined by referred pain therein, and it ceased after drainage of a sphenoidal empyema.

In Case 23 the headaches were relieved after both sinus operations, returning after a few months in the first case and disappearing completely after the second.

In Case 30 the headache, left frontal, ceased after drainage of the left antrum.

As an example of mixed causation, Case 36, although mainly sphenoidal sinus, probably had dental and tonsillär components in the causation of the headache and pains.

*Visceral, Nasal Obstruction and Discharge, Sore Throat.*—In the descriptions in the series reference is made to the existence of nasal obstruction in a few cases, either before the development of the mental illness or after the illness had been established.

A few examples :—

Case 14 had had septal resection ten years before the mental illness.

In Case 6 the middle turbinates were blocking the nose and preventing adequate drainage from the sinuses and portions of them were removed.

Case 24 complained to his doctor of stuffiness in the head and a feeling that his nose seemed blocked up.

Under "conditions precedent to the onset of mental illness" reference is made to the existence of nasal catarrh and soreness of the throat. An example where nasal obstruction and "catarrh" occurred in the same case, and probably alternated, is Case 30. He often used to get stuffed up in the nose, on one or more sides—not necessarily on the left only, and sometimes he spat up stuff from the back of the nose and throat. On anterior rhinoscopy the left passage was found to be almost completely blocked by oedema.

All these discomforts ceased after treatment of oronasopharyngeal sepsis.

Case 28 had an oedematous right inferior turbinate secondary to an empyema of the right antrum and the tonsils were purulent. He could appreciate the relief following the drainage and removal, and recovery then ensuing he expressed his satisfaction, stating that his "head and throat were a lot clearer."

*Disturbances of Taste and Smell.*—There are several cases in the series where disturbances of taste and smell are recorded and where the dependence of these—unpleasant—sensations is easily seen to be upon conditions of gross sepsis in the mouth, nose and throat. The disappearance of these disturbances and of the delusions founded thereon, following treatment of sepsis, is one of the most satisfactory demonstrations of the peripheral, as opposed to central, causation of the sensory disturbances of the psychoses.

In Cases 11, 22 and 27 disturbances of taste were present.

Case 11 had cacogeusia for three months prior to admission, but, after removal of 25 septic teeth, and septic tonsils he ceased to be troubled with bad tastes.

Case 27 with gross pyorrhoea and carious teeth projected his bad tastes on to his wife and accused her of marital infidelity. The delusion ceased when the causal fact of the cacogeusia had been removed.

Case 30 had cacogeusia for a long time before his accident.

In Cases 15 and 24 cacosmia was experienced. In Case 15 this was oropharyngeal in origin but in Case 24 there was an antral origin of its cause available.

In Cases 25, 31, 32, 33 and 35 both cacosmia and cacogeusia appear to have been present.

In Case 32 the condition was one of open sepsis and the basis for these symptoms was the tonsillar sepsis. When this was resolved these symptoms ceased.

In two cases these symptoms appeared in delusional form.



Case 36 had delusions of poisoning which were dependent on nasal sinus, oral and tonsillar sepsis. Nothing more was heard of this delusion after treatment of the septic disease.

Case 38 with tonsillar and dental sepsis complained of nasty smells and "tastes of blood from sacrifice, from the blood of the Lamb." In this case the sepsis in the tonsils was open, and after the dental sepsis was removed and the gynaecological condition treated, a reaction ensued which assisted in the cessation of decomposing discharges causing the cacosmia and caco-geusia. The latter, responsible for the elaborate delusion, was founded on the taste of the blood from the bleeding sockets of the diseased teeth, this ceased after their removal.

*Disturbances of Vision.*—Visual hallucinations were recognized in Cases 8, 16, 18, and 37. These ceased after treatment of sepsis.

In Case 38 Diplopia from a right internal strabismus ceased with the causal squint following treatment of sepsis. She stated that the double vision had appeared after the birth of her baby, and that six years before, during the course of a nervous breakdown, she had also seen double.

Case 33 considered she had better vision after removal of septic tonsils.

*Auditory Disturbances.*—A large number of cases in the series are recorded as having experienced auditory disturbances, tinnitus aurium and auditory hallucinations, and in some cases both these symptoms occurred in the same individuals, the tinnitus preceding the appearance of the hallucination and providing its peripheral stimulus.

*Tinnitus Aurium.*—Case 30 had tinnitus in the left, never in the right ear. This appeared before the accident, was principally a humming sound which appeared and disappeared with the headache and like the latter varied in intensity. Sometimes one was more marked than the other. The tinnitus ceased, he thought, after the first session of dental extraction.

*Auditory hallucinations.*—Are recorded in Cases 2, 3, 6, 8, 18, 19, 23, 26, 29, 31, 32, 36, 39 and in all except the last case this symptom ceased after treatment of sepsis.

*Tinnitus aurium merging into auditory hallucinations.*—In Case 13 tinnitus aurium in the form of humming noises in the right ear appeared and later auditory hallucinations were recognized, but after treatment of sepsis both disturbances ceased. In Case 25 auditory hallucinations were prominent as "voices" and there was also a buzzing noise in both ears.

In Case 33 on admission, it was elicited that she heard ringing bells and men's "voices" night and day saying lots of nasty things about her and shouting "Fetch an ambulance and do this woman in." On recovery following treatment of sepsis she stated that the "voices" came on during the last six months before admission. They began as a hissing sound in the right ear, which later turned into "voices." She had not had any left side auditory disturbances. It was about three months before admission that the "voices" began to make statements; then she thought she heard several people, men and women, talking about her, uttering pleasant and unpleasant remarks about her, some were for her and others against. In order to get away from these "voices" she applied for a maisonette.

In the preceding case the tinnitus and the hallucinations were unilateral, in the right ear only.

In the next example there is a spread from right to left.

Case 35 for six months before admission heard men's "voices" only when recumbent at night, the hallucination ceasing when she sat up. It was like a shouting in both ears, which she thought was by someone she knew, bad language and nasty things were said. On recovery she recognized that these were based on head noises, which had preceded the "voices."



These noises appeared first in the right ear, then in the left, but always worse in the right ear. After the removal of septic teeth and tonsils the "voices" and noises ceased.

Case 37 on recovery said that for about three weeks before admission head noises, crackling sounds like electricity, developed in the left ear only; later she said an aeroplane visited her during the night and she could hear bombs going off.

Case 16 was the subject of auditory hallucinations but these ceased after removal of some diseased teeth and septic tonsils and courses of non-specific therapy, although a tinnitus persisted in the right ear until the mastoid operation. After that the tinnitus ceased.

## THE RELATION OF SOME MOTOR DISTURBANCES TO THE TREATMENT OF SEPSIS.

### *Ocular Muscles.*

*Pupillary Inequality.*—In Case 1 the pupils were equal on first admission, at 19 years of age, and remained so through that illness. On second admission at the age of 27, following childbirth, the right was larger than the left, but following the removal of septic teeth and tonsils the pupils became equal.

The conception that this form of pupillary dilatation is due to stimulation of the ipsilateral cervical sympathetic by deep cervical lymphadenitis is supported in this case by the fact that she had had an operation for lymphadenitis in the right anterior triangle several years before.

*Strabismus.*—Cases 1, 2 and 38 had strabismus on admission and in Case 38 following treatment of sepsis this ceased.

*Blepharospasm.*—Cases 1 and 23 exhibited blepharospasm and in both cases this was associated with the presence of auditory hallucinations.

In case 23 there is a clear recognition that the spasm was acute and ceased after treatment of sinus sepsis. (During the course of the illness he had attacks of blepharospasm.)

*Ptosis.*—Cases 1, 21, 32, 33, 34 exhibited bilateral ptosis which diminished following treatment of sepsis.

### *Facial Muscles.*

*Frontalis Spasm.*—Spasmodic elevation of the left eyebrow was shown by Case 38 but after treatment of sepsis this ceased.

*Grimacing.*—Apparently a purposive volitional movement but in many cases a spasmodic condition of the facial muscles owing to a state of irritation of the fifth nerve, e.g., from diseased conditions of teeth, etc.

In Case 25 this grimacing ceased after treatment of oral sepsis including removal of impacted unerupted wisdom teeth and associated with mental recovery. The fact of its appearance in any case of adolescence should cause attention to be directed to these sources of irritation. A similar case was reported last year.

### *Articulation Muscles.*

*Stammering.*—Cases 15 and 30 were both troubled with stammer.

In Case 15 the treatment of dental and tonsillar sepsis made no difference to the stammer although it was followed by cessation of the severe psychotic state.

In Case 30 the toxæmia had so reduced articulatory capacity that his resulting poor speech effort was considered to be that characteristic of post-



encephalitis. Following treatment of sepsis the stammer became more recognizable as such and on mental recovery following completion of treatment the stammer was much less in evidence.

### *Upper Limb Muscles.*

*Dupuytren's Contracture.*—Following acute rheumatic synovitis and myositis Case 20 had an acute Dupuytren's contracture but this passed away completely as did the psychotic state following removal of septic tonsils.

### *Rheumatism.*

This term is convenient as a heading to refer to certain aspects of three cases in the series.

The most striking is Case 20 whose symptoms in succession were headaches, insomnia, sore throats, influenza, pains on top of head, general heaviness, then depression, hallucinations and suicidal tendencies. Following treatment of dental sepsis mental amelioration ensued, but later she developed rheumatic arthritis and synovitis, which, under medicinal treatment also improved, leaving as a residuum an acute left Dupuytren's contracture. This only disappeared, and mental recovery ensued, following removal of purulent tonsils. The pain on the top of the head also ceased after this operation.

Case 35 on recovery said that the "voices" which troubled her on her first admission followed the appearance of and were based on head noises. These noises developed after an attack of "rheumatism." These noises ceased after removal of septic teeth and tonsils.

Case 36 stated that he had been troubled with headaches—"rheumatism of the head" for 19 years before admission, following influenza in the epidemics of the war years.

### *Cardiovascular Disturbances.*

*Conditions of the Heart.*—Whilst in a few cases, e.g. Case 29, the cardiac limits and sounds appeared normal, there were some cases who presented evidence of cardiac dysfunction.

In Case 3 there was cardiac irregularity, and in Case 21 auricular fibrillation.

In Cases 17, 33 and 35 there was some evidence of valvular disease.

*Conditions of the Peripheral Circulation.*—Disturbances of the peripheral circulation are, in these cases of sepsis, principally pallor of the facies, indicating vasoconstriction from sympathomimetic activity of toxæmia, but with this pallor may be cyanosis of the lips, as in Case 35. Cyanosis in other parts may be the result of local septic disease. An example of local cyanosis is Case 8 with external nasal cyanosis, as a result of venous congestion due to nasal disease, blue in the summer on admission, but following treatment of sepsis in the head, and especially after drainage of diseased antrum and removal of septic tonsils, becoming red in the winter.

In Cases 19, 29 and 38 gynaecological septic conditions had left local disturbances of the peripheral circulation in a leg. In Case 19 the right leg was cyanosed, but became normal after local gynaecological treatment, and in Case 38 the patient stated that an old phlebotic condition of the leg was in a better state than it had been for ten years. This was due to the effect of reduction of general toxæmia and the local treatment of gynaecological sepsis.

Case 23 had a cyanosed general cephalic appearance on admission. There was a pansinusitis with bilateral ethmoidal polypi and diseased tonsils.



After treatment of this grossly septic state there was associated with mental recovery a disappearance of the cyanosis which had been so conspicuous on admission.

#### *Variations in Blood Pressure.*

The following series of cases contains two groups in relation to blood pressure. In the first group are examples of relatively normal blood pressure, e.g., Cases 1, 17, 18, 30, 31, 32, 34, 35 and 37. The ages of these cases respectively were 19, 27, 38, 28, 42, 52, 41, 29 and 29 years, and their psychotic states were those of confusion with excitement, or with depression, with sensory disturbances, perceived normally or in hallucination, or without such disturbances, and puerperal psychoses. Both sexes are represented.

Amongst these, Case 30, male, aged 28, with a history of head injury but with gross oronasopharyngeal sepsis had a blood pressure of 125/85 mm. Hg. The same pressure obtained in a female case aged 41 with very severe agitated melancholia, following influenza, with right sphenoidal catarrhal sinusitis, Case 34.

In contrast to the last case the pressure in Case 31, female, aged 42, also with depression and severe agitation was 118/80 mm. Hg. The last two cases in this group, Cases 35 and 37, both female and aged 29, nevertheless presented differences in their values under different circumstances.

On first admission, Case 35 had a blood pressure of 118/80 mm. Hg. and was in a state of confusion with hallucinations and excitement, and on re-admission 2½ years later in a state of confusion, but without hallucinations, the pressure was 120/85 mm. and after treatment by colon irrigation and prontosil, the pressure rose to 130/90 mm. associated with improvement in the septic anaemic and the mental states. On the other hand, Case 37, lactational psychosis, on admission with a pressure of 138/102 mm., after treatment by prontosil and removal of dental sepsis and purulent tonsils the pressure fell to 130/95 mm. Hg. associated with improvement in the septic anaemia and the mental state.

In the second group are three cases with pronounced elevation of pressure, but within the age limits of the first group and of both sexes, who showed more striking reductions of pressure following treatment of chronic infective disease and associated with amelioration of the mental state.

Case 22, male, aged 27, had a pressure on admission of 160/100 mm. with oronasopharyngeal sepsis and auro-mastoid disease, but, after treatment of this disease, including the use of prontosil and sulphanilamide the pressure fell to 145/100 mm. Hg., associated with pronounced mental improvement from the state of low grade confusion and persecutory ideation present on admission.

With such involvement of the ear it would be most improbable that this patient would escape auditory disturbances, but there was no evidence that he was troubled with tinnitus aurium or hallucinations of hearing.

Case 29, female, aged 47, had a pressure in April 1937, when in a state of confusion with some exaltation and with auditory hallucinations, liable to be attributed to the menopause, of 172/102 mm.Hg, with gross oropharyngeal sepsis, but after treatment by removal of septic teeth, colon irrigation and prontosil the pressure in December 1937 was 136/92 mm.Hg., and after removal of septic tonsils was 144/96 mm.Hg. associated with mental recovery, cessation of auditory disturbances and a gain of 11 lb. in weight.

Case 33, female, aged 47, in a state of confusion with depression and with auditory hallucinations and tinnitus aurium, had a pressure of 230/140 mm.Hg, but after colon irrigation it had fallen to 190/130 mm. and after removal of purulent tonsils, the administration of prontosil and also of protamine zinc insulin, it fell to 169/120 mm.Hg, associated with mental and physical improvement coupled with cessation of both forms of auditory disturbances.



*Haemopoietic Disturbances.*

In five cases in the series there are records of blood counts and in some of these the effect on the corpuscular content of the treatment of sepsis is shown.

In Case 31 a blood count taken in the premenstrual phase and before a brief pyrexial reaction to the treatment of sepsis had occurred, showed a pronounced reduction of erythrocytic and haemoglobin content. In Case 30 at a similar stage in treatment there was also a reduction in red corpuscular and haemoglobin content and a shift towards the lymphocytic content of a normal leucocytic count, but with further convalescence following treatment, and associated with improving general physical and mental conditions, there was a rise in the red and white count and a shift to a normal differential count together with a rise in haemoglobin content.

Case 29 showed some variations in the blood count during treatment. Shortly after admission, the red cells were a little over 4,000,000 and the white cells only 500 short of a normal count, but haemoglobin was only 75 per cent of normal, colour index was 0.91.

The differential count was 58 per cent. polymorphs to 37 per cent. lymphocytes. After removal of septic teeth and a course of prontosil a blood count showed a reduction of red cells, an increase of whites but a rise in haemoglobin and colour index. The differential count showed a rise in polymorphs.

Further treatment of sepsis showed, in two counts, a return of red cells to a slightly better figure than on admission, the whites being as on admission, but the haemoglobin at 80 per cent. and colour index 0.96. The differential count was also slightly better than on admission. In Case 35, on second admission, with a high dysentery titre, there was no evidence of oronasopharyngeal sepsis but there was evidence of streptococcal bowel infection. She had prontosil and colon irrigation treatment.

Coincident with a fall in the dysentery titre, from 180/90 to 50/50 units, a disappearance of streptococcal infection of the bowel, and clear colonic returns, there was an improvement in the mental state to recovery and a return to normal values in the components of the blood count, thus: red cells rose from just over 3,000,000 to nearly 4,500,000, a fall in white cells from 21,000 to 9,000, haemoglobin rose from 65 per cent. to 90 per cent. colour index fell from 1.05 to 1.02, and in the differential count polymorphs rose from 60 per cent. to 68 per cent. This improvement was shown over six counts.

In Case 37 following prontosil treatment and colon irrigation there was, associated with a cessation of streptococci in the faeces, an improvement in the red cells and haemoglobin but this improvement was not shared by the white cells, they rose from 12,500 to 15,800 and the polymorphs fell from 66 to 53 with a rise in lymphocytes to 43.

At this time the mental state was still psychotic and there was still sepsis in tonsils and teeth. When this sepsis was removed mental amelioration ensued.

*Upper and Lower Alimentary Tract Infection.*

In previous reports attention has been drawn to the passage of discharges from diseased conditions in the mouth, nose and throat to the intestine where the infections contained therein, being still active, are capable of contributing to the toxæmia of the originating chronic infective process.

This appearance of infective agents in the lower bowel derived from the upper tract is not surprising when it is remembered that the tubercle bacillus can be recovered from the stools in cases of pulmonary tuberculosis, even when sputum cannot be obtained. Not only can the organisms from the upper tract assist in causing toxæmia, but by their cumulative action over



many years they can set up local disease in the bowel, upper and/or lower, such as colitis, and if the specific organism is present and the patient is sufficiently debilitated by the septic organisms, bacillary dysentery.

These conditions of summation are so well known in institutions as to be labelled asylum, etc., colitis and dysentery, although no one has ever heard a similar appellation applied to tonsillitis, pyorrhœa or sinusitis, etc., which are the originating conditions. The emphasis of the interest has always fallen on the final and least curable—although ameliorable—phase of the chronic infective process in the alimentary tract.

The cases in the series provide some evidence in this relation.

#### *Coincidence of Tonsillitis and Colitis.*

Case 10 provides a coincidence of tonsillitis and colitis. Associated with the radical treatment of severe pyorrhœa he developed colitis, as part of an exacerbation reaction, in the autumn of 1936, and in the spring of 1937 tonsillitis and colitis, in coincidence, determined an attack of mental disorder. He complained of bifrontal headache which might have been attributed to these conditions but radiography and surgery demonstrated them to be due to an unerupted canine. There was during residence in mental hospital no clinical evidence of colitis but the tonsils were very diseased and following their removal the mental state improved to recovery. The bowel was treated with continuous colon irrigation.

#### *Evidence of Continuous Colon Irrigation.*

In twenty-one cases in the series, continuous colon irrigation is described as having been employed, the object being to reduce the general toxæmia by removing infective discharges from the bowel. In Cases 5 to 16 its use in treatment is recorded, in Cases 28 to 36 the local observations are given in a little detail and the effect on the presence of mucopus in the colon of treatment of septic conditions in the head is shown. Reference will be made to six of these cases :—

In Case 28, two sessions of colon irrigation brought away large patches of mucopus. At this time the right inferior turbinal was oedematous, as a result of an empyema of its adjoining right antrum, and the right tonsil exuded liquid pus. The tonsils were removed and the right antrum was drained on October 1st. At the end of October a colon irrigation brought away only small flakes of mucopus.

Case 30, on colon irrigation, before closed sepsis had been turned into open, gave a clear return on colon irrigation, but after drainage of a purulent antrum large flakes of mucopus appeared in the bowel. When the antral washouts became clear the colon irrigation returns were quite free of mucopus.

Case 31 before the completion of removal of gross dental sepsis had sessions of colon irrigations which brought away variable, sometimes large, amounts of mucopus, but after its completion three sessions of irrigation gave returns free from the mucopus observed whilst the dental sepsis was still present.

In Case 32 the colon irrigations by supplying fluid assisted routine medicinal agents to cause a reaction in areas of open cephalic sepsis and thus reduced the toxæmia.

Returns containing large quantities of mucopurulent discharge were followed by those with a progressively diminished content and examination of the nose and throat found no evidence of persisting infection necessitating active surgical treatment. This case recognized the benefit she obtained from colon irrigation, she remarked that she felt better the day after the irrigation.

In Case 33 the returns brought away a large amount of mucopus before removal of large purulent tonsils, but after this had been completed, and a



course of prontosil had been given, three sessions of colon irrigation removed only very little mucopus from the bowel.

In Case 35 coincident with clear colonic returns and improvement in blood count there was an improvement in the mental state.

These cases show that repeated treatment by colon irrigation is not likely to cause colitis as some have remarked. Where such a possibility has occurred it is highly probable that sepsis in the upper part of the alimentary and respiratory tracts has not been dealt with.

### *Intestinal Infection.*

*Positive Widal Examinations for Dysentery Organisms.*—In all cases on admission a Widal test is carried out, and in previous reports attention has been drawn to the very large number of cases which present positive results to this test for Dysentery infection. It is not that special attention is given to the dysentery organisms, for they are not the only ones for which the agglutination test is applied, but it is in this group that the largest number of positive results, and of these the highest titres are obtained, excluding of course those values attributable to T. A. B. inoculation.

It is not that these titres are met with only in readmitted cases, they occur with striking persistency in first admissions; but, whether first or re-admissions, there is generally no history to be obtained of any bowel disturbance and certainly none of the usual clinical manifestations of dysentery.

In the present series some examples to illustrate these points are furnished by the following cases :—

The Widal titres of Case 28, a first admission, give evidence of a T.A.B. inoculation, probably Army, but also of having had a B. Aertrycke and a B. Dysentery Y infection before admission. As both the latter values are indicated by 25 Oxford units it is likely that these infections were at some considerable time before admission and, actually, the mental-physical disorganization was of some standing.

Case 29 had titres positive to B. Dysenteriae X 125 and B. Dysenteriae Y 35 Oxford units, the tests for the remainder of the agglutinating organisms were negative. It was her first admission but the test had been carried out probably six months after the onset of the mental symptoms prior to admission.

In Case 31, her first admission to mental hospital, the Widal test was negative to all organisms except for the heavy titre against B. Dysenteriae X of 250 units, that for B. Dysenteriae Y being 50 units. Another similar heavy titre was Case 39, also on her first admission, who gave a negative response except for the 250 units against B. Dysentery X.

In Case 32, first admission, the Widal test was negative to all organisms except to B. Dysenteriae X, 180 and B. Dysenteriae Y, 250 units. In this case it appears that mental depression had been manifest for five weeks before admission to mental hospital.

In contrast to these high titres, Case 33, a first admission, had only B. Dysentery X, 35 Oxford units, the remainder were negative. In her case the duration of mental symptoms appears indefinite, but certainly for more than three months before admission.

Similarly in Case 34, a first admission, all the tests were negative except for 12 units for B. Dysenteriae Y. In this case nearly three months had elapsed between the onset of the mental state and admission.

In Case 37, a first admission had a titre of 35 units to B. Dysentery Y. In Case 5 on first admission the Widal test was negative for all organisms except B. Dysenteriae Y, 42 units, on second admission, three months having elapsed, the titre was only 12 units for the same organism.

Case 38, a first admission, on admission had positive titres only for these dysentery organisms thus : Bacillus X, 180 and Bacillus Y, 90 units. On



discharge from mental hospital, three months later, the titre had become B. Dysentery X, 90 and B. Dysentery Y, 35 Oxford units.

Case 35 on her first admission to mental hospital had given a completely total negative result to the Widal test. On her second admission, two years after discharge, there was a positive finding for B. Dysenteriae X and Y, only, of 180 and 90 units respectively. In this case the mental illness was less than a month's duration prior to the second admission. On second discharge, six months' later, the titre for these organisms was 50 units for each. In the interval between admission and discharge there had been fluctuations of 50 and 70, and 25 and 90 units respectively. These findings suggest that at a variable, but relatively near, time before admission to mental hospital these patients acquired an infection with dysentery organisms which set up a subclinical condition in which a disturbance of the emotional tone was the principal symptom. In Case 35 we get the clue that prior to admission she had a "cold," and went to her doctor who gave her medicine for a "cold" and after this she became confused. The "cold" was the only unusual event. It is thus not unlikely that the "cold" was an unrecognized clinical manifestation of the dysentery infection. These dysentery infections probably leave residual organisms in the bowel, but they cannot be demonstrated with the same ease as they can in a typical clinical dysentery case. It is, however, highly probable that they persist, and when the host becomes sufficiently debilitated, as by accumulations of sepsis, these residual dysentery organisms begin to multiply, and can then be demonstrated in the stools, but similarly disappear again when septic conditions are treated in the host. This was demonstrated in Case 15 in last year's report.

Later still in the course of the mental illness, in conditions of debility, these residual infections, as has been shown, probably acquired before the onset of the mental illness and in some degree responsible for it, may exacerbate again into a condition of typical clinical "asylum dysentery." It is well known observation that after such an attack a patient's mental disorder is usually worse. Similar effects of mental illness thus arise from a similar toxæmia, the earlier having a subclinical, the latter a clinical disease accompaniment, the infection however is the same.

In relation to the classification of mental disorder:—it will be observed that these high titres are met with in no one type of mental disorder, they also occur in relation to those cases in which other factors, which commonly bulk largely in the clinical picture, are prominent, e.g., reproductive conditions, syphilis, high blood pressure, &c.

#### *Bacteriological investigation of faeces*

*Dysentery organisms.*—In a considerable number of cases during the past year, where Widal tests have been positive for dysentery organisms, bacteriological investigations, similar in technique to those giving positive results in cases of clinical dysentery, of the faeces have been made but with negative results, e.g., two examinations in Case 31 were negative. Occasionally, as in the case reported last year, but only found on routine examination in non-clinical cases, a transient appearance of these bacilli may be obtained. Reference back to the case will show that following treatment of septic disease in the head the dysentery organisms disappeared from the stools. In last year's report it was submitted that the septic state facilitates the activity of any otherwise impotent dysentery infection from a sub-clinical state to one of clinical intensity. It has to be recognized that the finding of dysentery organisms will—unless the dose is massive—depend on the activity of other organisms and in clinical dysentery these other organisms are present also in the stools.

*Organisms of septic infection.*—Occasionally only B. Coli are recoverable on examination of the faeces. In this present series cases, 5 on both admissions, 28 and 35 (on first admission) are examples of cases who were thus wholly



negative for pathogenic organisms. In quite a large number of cases however a variety of other organisms are found and in the series now submitted the following cases are examples :—

In case 29 an examination of a swab taken from the throat during an exacerbation of the septic state found the two staphylococci and streptococci anginosus, salivarius, cuniculi and saprophyticus. After treatment of the cephalic sepsis, surgically, and by a liberal use of prontosil and colsulanyde, and colon irrigation, the faeces on bacteriological examination were found to contain no abnormal organisms.

In Case 30, on admission, the stools were found to contain : streptococcus salivarius, streptococcus saprophyticus and B. Friedlander. After treatment of gross cephalic sepsis, surgically, by soluseptasine, and colon irrigation bacteriological examination of the faeces found only B. Friedlander.

In Case 32, on admission, the faeces contained : B. Friedlander, streptococcus faecalis and streptococcus equinus.

After treatment by colon irrigations, during which there was a focal reaction in the open septic state in the head, and by colsulanyde, the faeces contained only B. Friedlander.

In Case 35, on first admission, no abnormal organisms were found, but on second admission there were found streptococci faecalis, saprophyticus, infrequens, cuniculi, salivarius, an-haemolyticus, B. Proteus and B. Friedlander, but later, after repeated treatment with prontosil and colon irrigations, examination found no abnormal organism.

Case 37 shortly after admission had an exacerbation of her chronic tonsilitis, a swab from this gave staphylococci, streptococci, large gram positive diplococci, and bacteriological examination of the faeces found streptococcus anhaemolyticus and faecalis. After colon irrigation and a course of prontosil repeated examinations before and after removal of diseased teeth and tonsils failed to find any abnormal organisms. Associated there was an improvement in the Erythrocytic count.

In all these cases associated with a freedom in the bowel from abnormal organisms there was a mental amelioration.

### *Gynaecological Conditions.*

Since the appearance of anti-scarlet streptococcal serum, and especially since the advent of prontosil, there are no longer admitted to mental hospital the cases of hyperacute puerperal sepsis with septicaemia. If they occur, these are now being treated in the general hospitals, instead of being sent, because they were delirious, in a moribund state, to swell the death roll of the mental hospital.

The gynaecological conditions now occurring find only a partial illustration in some cases in the series.

Case 4 had some chronic gynaecological sepsis following parturition 16 years before. The cervix was badly lacerated and septic, with granulation tissue in the endocervix.

In Case 18, admitted 12 days after childbirth, the uterus was well involuted, but the right leg and foot were swollen. This condition subsided on treatment.

Case 29, had had a white leg following the birth of her last child and although periodically this leg swelled and was painful, and continued so until admission to mental hospital, on examination there was no evidence of local gynaecological sepsis. However, after treatment of the septic state in the head the discomfort in the leg ceased to trouble the patient.

Case 31, a year after confinement, 11 months of which she had suckled her child, had no important gynaecological disturbance. Nor had Cases 32, 33, 34 and 35.

Case 37, seen six months after confinement, displayed only parturient tears and an erosion on the cervix.



Case 38, seen four months after confinement, had some gynaecological sepsis.

Case 39, on re-admission after delivery, had a retroverted subinvolted uterus and a slightly offensive discharge which persisted for about ten days. Temperature was 99° F.

However, resolution of the gynaecological condition was not followed by mental recovery in this last case.

#### *Disturbances of Menstruation.*

In 11 cases of the series some disturbance of menstruation is recorded.

*Epimenorrhoea and Dysmenorrhoea.*—Case 29 had had menses on a three-weekly periodicity for six months and then the appearance became fortnightly for the last 17 months before admission to mental hospital, each period lasting from two and a half to four days, preceded and accompanied by pain in right leg, so severe as to prevent her getting about. Following admission, amenorrhoea occurred for eight months, during which cephalic sepsis was treated and then menses returned on a normal periodicity, and without dysmenorrhoea, although the patient was aged 48.

Case 34, aged 41, had amenorrhoea for 11 months, but after partial treatment of sepsis menses returned on a three-weekly basis and continued so for six months. However, during a course of retarded insulin injections the appearance became nearer to four-weekly than ever previously and with their cessation fell back to nearer three-weekly appearance.

*Amenorrhoea.*—Cases 1, 2, 3, 17, 20, 31, 33, 37 and 38 illustrate the occurrence of amenorrhoea for varying periods of time in relation to the mental illness and in most cases its cessation after treatment of sepsis. In Case 2 it last for a year, in Case 3 for four months, in Case 26 for six months, but in Case 31, an example of superlactation, menses only failed to appear on one occasion and at that time she showed a pronounced improvement in the mental state. She was “incarcerated” for six months and was in a state of fear, but nevertheless there was no consecutive amenorrhoea.

In Case 33 menses appeared, at the age of 47, in alternate months, but this alternation ceased after treatment of sepsis.

In Case 38 menses returned after lactational amenorrhoea.

In Case 17 a substantial mental amelioration occurred, in a woman aged 27, in a case of psychosis following childbirth, although amenorrhoea had lasted for seven months.

#### *Psychoses of Reproduction.*

In the series are nine cases illustrating the psychoses of the different stages of reproductive life.

*Psychosis of Pregnancy.*—This relatively rare condition is illustrated by one case, and one associated with typical closed sepsis, Case 39. It was not however the first, not the second but the third pregnancy which appears to have determined the psychosis. There was no evidence that this was a “flight from the reality” of the pregnancy, because previous pregnancies were normal, labours easy, there had been no miscarriage and she was very fond of children. The psychosis appears to have started during the first weeks of pregnancy and after the fifth month ameliorated, so much so that it was considered reasonable for her to leave the mental hospital for her delivery, which was, like her child, apparently normal. During residence in mental hospital investigation found some evidence pointing to nasal sinus disease, but, as was found in the sequel, that evidence was anomalous and misleading and any action guided solely by this indication might have done, under the circumstances of the pregnancy, more harm than good.



*Psychosis of Puerperium.*—Case 39, reappears as a psychosis of the puerperium being readmitted a week after delivery. The gynaecological condition having improved she nevertheless remained mentally disordered and then, having given no indication of any pain therein, she suddenly avulsed her left eye-ball. A grossly polypoid and purulent condition of the left antrum was now found on full exploration. Had exploration however been limited only to the anomalous indications, this finding would not have been made. With the full possibilities of treatment yet incomplete amelioration has not yet reached recovery.

Case 18, kept well for 12 days after delivery and then became delirious. There was some residual sepsis but the uterus was well involuted. Dental sepsis was removed but had little effect on the mental state although it was followed by the disappearance of pus and albumen from the urine. Removal of septic tonsils however was followed by uneventful physical and mental convalescence.

*Psychoses of Lactation.*—Case 1, who had had a severe mental breakdown at the age of 19, but who recovered following treatment of sepsis, and kept well for nearly eight years, including her pregnancy, passed into a state of confusion during early lactation of her first child. The gynaecological condition was satisfactory but there was much sepsis in mouth and tonsils and following its removal non-specific therapy effected a second recovery.

In this case the baby, doubtless as a result of the absorption of maternal toxins, died.

Case 17, had a miscarriage followed by pregnancy and confinement and developed pyelitis and depression and was admitted to mental hospital three months after her first childbirth. There was a history of continued sepsis and this was present in the head on admission. There was no diseased gynaecological condition to account for her mental state but treatment of the cephalic sepsis was followed by recovery.

In this case it is reasonable to suppose that the maternal sepsis killed the foetus and produced the miscarriage before the next pregnancy proceeded to term.

Case 37 had had four pregnancies and her, non-syphilitic, history indicates the effect of toxæmia on her children. One child was still-born, one died after birth and two were alive, including the one being breast fed, when, six months after its birth, she broke down mentally as a result of her own septic state. This sepsis was cephalic, not gynaecological, and following its treatment her mental state showed an amelioration satisfactory to her husband.

Case 38 had had scarlet fever after confinement and after four months lactation developed a state of confusion, but after treatment of gynaecological and oral sepsis she made a good recovery.

*Psychosis of Superlactation.*—Case 31 is an example of lactation, second child, continued beyond the normal period, in this case for 11 months. Cessation of the lactation, including a month at home, however was not followed by mental amelioration. This ensued only after treatment of oral and bowel sepsis.

*Psychoses remote to Childbirth.*—There are two cases in the series where psychosis developed remote from childbirth, but in which conditions which appeared in connection with the confinement continued thereafter and exhibited themselves as part of the general state of illhealth leading up to the psychosis. These conditions are those of sepsis and appearing, perhaps in acute form, at the confinement they, as residua, persist as a chronic infective process.

Case 4 is an example where this sequence of a state of continued illhealth lasted from March 1921 until admission into mental hospital in July 1937 when a septic state, oral and gynaecological, was found and treated with considerable enhancement of physical and mental vitality.



Case 29 had a "white leg" following the birth of her second child, 16 years before her admission to mental hospital but although this improved a residuum persisted and it would periodically become swollen and painful. On her admission to mental hospital this was very swollen and painful.

However, following treatment of sepsis in the head, not only did she make a good recovery mentally but there was no pain and no swelling of the leg in relation to the periods which occurred then.

#### *Urinary Disturbances.*

In Case 15 Albuminuria was still present after treatment of sepsis although the patient had recovered mentally.

Case 17 developed pyelitis after confinement and on admission there was pus and a cloud of albumen but after removal of septic teeth these constituents diminished.

In Case 18 there was a cloud of albumen and pus present, also after childbirth, but these ceased after removal of septic teeth.

Case 27 had a faint cloud of albumen present on admission but after treatment of oral and tonsillar sepsis this cleared.

Case 39 had a slight albuminuria which later cleared up following treatment, but she also had a glycosuria which remained practically constant since then, and is probably due to pituitary deficiency as a result of the cephalic sepsis.

#### *Climatic and Seasonal Variation of Symptoms.*

The liability of upper respiratory tract infections to exacerbate in the winter and to improve in milder weather has its counterpart in the fact that conditions of simple depression due to open sepsis will tend to improve in the summer and relapse in the autumn and in typical form continue during the winter, especially exacerbating during November and February and March, although sometimes showing an improving tendency of a transient duration in December.

If, however, sepsis is treated a change can sometimes be established in this chain of events. All must, of course, depend on the nature, extent and severity of the sepsis.

Case 7 had improved following treatment of sepsis and had been discharged in February, but residual sepsis was present and became active, especially in the teeth. As autumn came on the septic process caused pains in the head and a general feeling of incapacity which passed on to stupor. However, the sepsis with defective drainage in the teeth was dealt with by removal, residual sepsis was treated by prontosil and colon irrigation, and again he improved with the appearance of the bud of the leaf and has kept well with its following fall as a result of the enhanced vitality resulting from treatment.

Case 22 shows an intermediate stage. During the winter he had had "colds" several times. Depression appeared and the psychotic state exacerbated especially after November to require steps to be taken in the matter in December. Following treatment of extensive sepsis he nevertheless improved in the winter and was able to be discharged in the ensuing March.

In Case 36 there was a complex septic state and in the case of the sphenoid, with its polypus acting as a ball valve, varying between open and closed. He recognized on recovery that his headaches and pains were made worse by a change of weather and that on a damp cold day he was always depressed. He had had this cephalalgia since 1918 and his wife recognized that since then he had deteriorated mentally. Especially was he depressed in the winter, then with the return of warm weather at the end of April, he became abnormally elevated, unreasonable and restless in May. A state of futility was shown and as the hot weather came on irritability, anger and violence appeared. This manic-depressive reaction was undoubtedly dependent on the state of drainage, and that would be dependent on allergic reactions in the



diseased tissues consequent on varied conditions of the atmosphere; and, associated with these reactions, would be the increase or decrease of activity of organisms dependent on whether they were aerobes or anaerobes. The latter for example, becoming more active in spaces where drainage was deficient and aeration consequently reduced. The drastic treatment of the sepsis of this case caused an objective, as well as subjective, improvement, in this case during the winter months, a change which his wife fully recognized.

### *Examination Procedures.*

#### *Radiographic Examination.*

The necessity for the use of radiography in investigating mental disorder is indicated in the cases of the following series, although mention is not made in every case description where it has been employed.

Experience has shown that where exact dental history records are not available there is always the possibility of dental elements, or their moieties, being present in apparently edentulous jaws. Before dentures are fitted radiography should therefore be employed, otherwise serious results may follow the persistent attempt to wear dentures over such buried remnants.

Cases 31, 32, 33 and 35 are examples in the series where radiography thus confirmed clinically edentulous jaws.

In Cases 32 and 33 the presence of headaches on admission was an added reason to eliminate the possibility of the presence of dental residua.

On the other hand some examples where positive findings were made are supplied by Cases 1, 9, 22, 29 and 34. Here buried roots were found in areas of the jaw clinically edentulous.

In Cases 9 and 29 only one in each case, but in Case 34 three such roots were found. These cases show the importance of erring on the side of thorough exploration by radiography and making such procedure a routine one. That such is necessary is shown by Case 9, here seven teeth and two roots all septic, had been removed and it might have been held that as there were visible roots already present there would not be likely to be any not visible, yet radiography disclosed a buried root with a periapical abscess.

In cases where teeth are whole and visible, but septic, radiography can assist in the decision whether to conserve or extract. In Case 34 radiographic evidence assisted in deciding the extraction of five teeth previously conserved.

The most striking evidence afforded by dental radiography in cases of mental disorder is in the disclosure of the unerupted and impacted teeth.

In the following series are eight cases where unerupted or malerupted, impacted wisdom teeth were found in one, two or all four jaws. Cases 1, 2, 3, 13, 15, 16, 25 and 30, and in two other cases, 10 and 22, there were found unerupted canine teeth.

Among other applications referred to in the series are the radiography of the oesophagus and stomach for dysphagia in Case 4, and of the chest in Case 35.

Radiography of the nasal sinuses was carried out in Cases 25 and 39. In the latter case the radiographic evidence was like that of transillumination and if decision had been guided by these evidences the explanation of the avulsed eye would have been wanting.

#### *Treatment for syphilis.*

Case 5 is an example of a combined pyrexial and arsenical method for treatment of syphilis which has been used during the year and is still being employed.

Tryparsamide is given whilst the temperature is rising following an intramuscular injection of Crookes' Colsul, aqueous colloidal sulphur. This method has been used for general paralysis as well as in other cases where there is evidence of old syphilitic infection.



No untoward sequelae have been found. In Case 5 it is noted that there were good pyrexial reactions and that after this treatment had been given improvement was marked.

#### *Serotherapy.*

To three cases antiscarlet streptococcal serum was given. Case 2 received this treatment after removal of septic tonsils by dissection but before drainage of a purulent right sphenoid. It is worthy of note that after this course she showed mental improvement enabling the nasal sinus investigation to be undertaken. Later it is interesting to observe that her final improvement resulted from the use of another antistreptococcal agent, prontosil.

In Case 6 a course of the serum was given on account of the dubious condition of the remaining teeth in an attempt to save them, later however ten of these had to be extracted.

In Case 12 antiscarlet serum was used to strengthen the immunity preparatory to surgical procedures.

#### *Non-specific and pyrexial therapy.*

##### *Colsul therapy.*

Mention is made in the series of the use of Crookes' aqueous colloidal sulphur by intramuscular injection for its non-specific and pyrexial effects in fifteen Cases—Cases 1, 2, 3, 5, 6, 8, 11, 12, 13, 16, 17, 18, 28, 34 and 36.

In several cases the pyrexias thus obtained have been described as good, e.g., Cases 6, 8, 11, 13, whilst in Case 18 the reaction is classed as poor. Amongst the temperatures recorded are : Case 1, where a maximum of 103° F. was obtained ; Case 17, 103·8° F. ; Case 28, 103·4° F ; Case 34, 102° F. ; Case 36, 103·8° F.

The value of this treatment in assisting recovery will depend, like all means of treatment which are not absolutely specific (e.g. thyroid in myxoedema), on whether sepsis has been efficiently treated or not. If closed or deep sepsis still persists, then the possibilities of this agent being effective in assisting amelioration are correspondingly reduced, whilst if the sepsis is open or residual the possibilities are similarly enhanced of a salutary effect being secured.

This series of cases illustrates this very important principle.

In Cases 1, 2, 3, this treatment was given before sepsis had been completely treated and whilst a good pyrexial reaction might have ensued, as in Case 1, no mental improvement followed the colsul treatment.

In Cases 6, 13, 16 and 34 a course of colsul was given in an intermediate position in the treatment of the sepsis, that is, when a major part of the sepsis had been treated and when it then appeared that there was none further to treat. In these cases some amelioration followed this treatment, but not the more complete enhancement of mental and physical vitality which later appeared when still occult sources of toxæmia and irritation were found and treated e.g. whilst Case 13 was less depressed after its use he was not as well as he was later.

In the remaining examples of this treatment, Cases 5, 8, 11, 12, 17, 18, 28 and 36, the colsul injections were given at the completion of the elimination of closed sepsis and conditions of irritation, such as impacted wisdom teeth, and here a definite improvement could be appreciated following its employment in the physical and mental states. An improvement which the patients themselves could recognize and assert as related to this treatment.

Thus, Case 17 received this treatment after removal of dental and tonsillar sepsis and said that following it her head felt lighter and her mind clearer.



In Case 28, following this treatment, definite physical and mental improvement now began to appear.

Case 36 was similarly much improved after a course of colsul following treatment of sepsis.

Although Case 18 had previously had albuminaria, a course of colsul following treatment of sepsis was followed by no untoward reaction, in fact improvement was maintained.

*Protein Therapy : Typhoid-Paratyphoid Vaccine, T.A.B.*

In 4 cases in the following series T.A.B. was employed. In two cases this agent was given intravenously, Cases 16 and 34 and in two other cases large doses were employed intramuscularly, Cases 1 and 2.

The same principles already indicated in relation to the non-specific action of colsul obtain also in relation to T.A.B., and it is possible that, even intramuscularly administered, this agent can have a focal action and assist in causing the discharge of residual sepsis in areas with effective drainage.

To Case 1, on her second admission, large doses of T.A.B. were given intramuscularly after the elimination of sepsis and, although she showed little immediate reaction, the mental confusion later lessened.

Case 2 similarly had the same treatment and there, also, there was no immediate reaction shown.

In Case 16 the intravenous method was employed, and here it was given in an intermediate relation to the completion of elimination of sepsis, with good pyrexial reactions immediately following and later with a partial amelioration of the mental state.

Similarly in Case 34 it was given in an intermediate relation. Pyrexias led to 104° F. were obtained, and following this there was a reduction in the intensity of her conduct reactions enabling radiography and leave of absence, under care, from hospital to be undertaken.

*Treatment by Protamine Zinc Insulin.*

The object of this treatment is not to produce either shock, coma or hypoglycaemia; but, whilst maintaining as high a level of sugar in the blood as possible, to stimulate anabolism, through the hormone action on the parasympathetic system, and thus to reduce the activity of the fear-anger process set up by the endogenous action of sepsis. To effect its use, therefore, required as far as was possible the elimination of sepsis, so that the agent could act unhindered on cerebral capillaries which had become set in a pattern of vasoconstriction by the septic toxæmia.

The further intention was not a sudden but a gradual and continuous action. This sustained effect it was hoped to obtain by means of the dual retard of the protamine and zinc action on the insulin. Tests of the sugar content of the blood and urine before and during the administration were made, and the appearance of any sign indicative of hypoglycaemia was followed by a reduction or even cessation of the treatment and other appropriate action. During its administration copious drinks of glucose were given.

Two cases, 33 and 34, are described in the series where during its administration a state of anger with hallucinations abated, Case 33 and one of fear subsided, Case 34.

These cases had had drastic treatment for sepsis and it might have happened that these ameliorations might have ensued apart from the insulin therapy. That the insulin had some action—apart from its presumed action on the fear-anger symptoms—is suggested in Case 34 where during its administration an epimenorrhoeic periodicity of menstruation became a normal one, but relapsed later to its former periodicity on cessation of this treatment.



In these two cases the treatment appeared to have been a determining factor in the recovery which appeared at a time of the year when such ameliorations are far from plentiful. Moreover, in both, the effect has been sustained and this suggests that the set of the capillary pattern has been permanently changed. That the action of this agent, thus carefully protected, is ineffectual in cases of persisting sepsis was shown by its action in a case of exophthalmic goitre in a woman who, prior to admission, had had radiation therapy for the condition. She had been admitted in a state of confusion and, following treatment directed to sepsis, the psychotic state had subsided sufficiently to allow her to live in the Convalescent Home, but the cardinal signs were still present. During the autumn the cardinal signs increased, she became very distressed; but treatment by retarded insulin was followed by a pronounced amelioration of the cardinal signs, especially the pulse and exophthalmos and the distress. It was possible to stop the treatment for a while. Later, however, there was a relapse in the symptoms and now the insulin had no effect, bronchitis developed and death. At autopsy both antral cavities were found to be almost obliterated by their thickened catarrhal-purulent membranes. Here, previous treatment had not been successful in removing all the residual sepsis.

In another female case, whose exophthalmic goitre had similarly been treated with X-ray before admission, there was certainly a reduction in the exophthalmos during treatment, not observed as a result of rest in bed.

In the case of a male of middle age, with a very inveterate hypochondriacal melancholia, in whom the removal of sepsis had not been followed by any immediate change, a course of this treatment has been followed by considerable mitigation of the symptoms. There is a gradual weakening of the whole symptom state and he is able to work out-of-doors and although he still, when asked, says he has abdominal discomfort, it is not the "terrible pain" which was formerly so constantly forced on the attention of all and sundry. In five other male cases of pathological fear this treatment was ineffectual although not in any way retrograde in its action. Here the set of the capillary pattern appears to have become permanent. In a non-exophthalmic woman the treatment had the effect of reducing a rapid pulse, but no other effect.

#### *Prontosil and Sulphanilamide.*

A more extensive use has been made during the past year of the agents variously named, prontosil, sulphonamide, sulphanilamide, soluseptasine, colsulanyde, which are now recognized as bactericidal, and especially streptocidal in their action.

In last year's report the rationale of their use in the therapeutics of mental disorder was discussed, and, under the three groups of cases formulated in that report, those treated during the past year can also be considered.

1. Conditions of gross sepsis, with or without pyrexia, and mental disorder.
2. Conditions of focal sepsis and mental disorder.
3. Conditions of residual sepsis and mental disorder.

#### *(1) Conditions of Gross Sepsis, with or without Pyrexia and Mental Disorder.*

In this group are placed cases where there is a more extensive spread of infection from foci to skin, blood, lungs, subcutaneous tissues, etc., and the chronic infective process is reaching its maximum development of pyaemia, septicaemia, etc.

These late manifestations for which the agents are given sometimes subside as a result, although the original focus is still present and active, the new tissues into which the infection has spread appear capable of overcoming the invasion, and, in this, these agents appear to be helpful, although they do not appear to be able to destroy the original focus and its toxæmia.



Consequently in some of these cases there is physical but not mental improvement following this treatment.

Sixty-nine cases of mental disorder have been treated during the past year where these conditions obtained. They comprised 35 men and 34 women for whom these agents were used for a variety of septic conditions, thus : boils, carbuncles, erysipelas, other cutaneous sepsis of skin and subcutaneous tissues, tonsillitis, oral and dental sepsis, quinsy, thyrotoxicosis, mastitis, otitis media, bronchopneumonia, acute sinusitis, dacryocystitis, septicaemia.

In these the use of the agents was followed by physical improvement in 29 men and 27 women, 56 cases; but they were unable to prevent death occurring owing to the severity of the diseased condition in ten instances. These were conditions of carbuncle (1), septicaemia (2), thyrotoxicosis (1), bronchopneumonia (1), acute sinusitis (1) and other generalized septic conditions (4).

In only one of these cases, one of oral sepsis, was any mental improvement observed.

Amongst the cases showing physical improvement were : all the cases of tonsillitis, 5 out of 6 cases of carbuncle, all the cases of boils, all the cases of erysipelas, all those of oral and dental sepsis and of otitis media and other conditions of the skin and subcutaneous tissues.

### *(2) Conditions of Focal Sepsis and Mental Disorder.*

In a few cases in the series these drugs were given before treatment of Focal Sepsis had been proceeded with surgically. They are Cases 7, 18, 21, 37.

In Case 7 prontosil was given before and after removal of septic teeth and he was then recognized as a much improved patient.

Case 18 received prontosil on account of gynaecological conditions; but although no sepsis was subsequently found locally, the right leg and foot became swollen and cyanosed and there was no mental improvement. Further her septic teeth remained septic and her tonsils remained purulent and were actually oedematous.

In this case there was therefore no improvement in the mental state until after the removal of the cephalic sepsis which the prontosil was unable to dissipate from these diseased foci.

Case 21 received prontosil with no appreciable effect on the mental state and it was incapable of removal of the disease from the right sphenoid which was later found to contain thick pus, but, when colsulanyde was given after drainage of the diseased sinus, amelioration of the mental state began to ensue.

Case 37 had prontosil as a measure to assist dental conservation and following its use there was a reduction in the noisy restlessness, enabling better co-operation to be obtained. After its use the blood count improved and the bowel content became free of abnormal organisms, although she had chronic tonsillar sepsis, but the dental and tonsillar septic conditions persisted and only following their surgical removal did mental amelioration ensue.

From these observations it is concluded that these agents have no action on conditions of closed sepsis, that they induce a focal reaction in septic diseased tissues, and that, if the septic state has an effective drainage, then amelioration of the toxæmia ensues. If drainage is defective then the focal reaction may prevent drainage in some cases.

Their use is thus seen to be of value in relation to foci of sepsis to stimulate healing after surgical removal and drainage of foci of sepsis.

### *(3) Conditions of Residual Sepsis and Mental Disorder.*

The series of cases contains several examples where these agents were employed to combat residual sepsis and hence assist healing and following operation reduce the toxæmia. The Cases are 2, 4, 7, 9, 10, 17, 19, 21, 22, 25, 30, 32, 33, 35 and 38.



Case 35 is especially interesting in this relation. No closed or especially active sepsis was found in the head but there was anaemia and bowel infection. Two blood counts showed relatively little difference but, following prontosil, there was a considerable improvement in the anaemia shown by further blood counts and in the mental state.

Colon irrigation supported this improvement and the combined treatment was followed by the disappearance of abnormal organism from the bowel content together with consolidation of the mental amelioration.

Case 32 is a similar example but unsupported by blood counts. Here colon irrigation was followed by mental improvement and after treatment by these agents bacteriological examination found no abnormal organisms in the faeces.

In Case 25 the treatment was employed after extensive sepsis had been treated surgically with very satisfying results. The other cases illustrate similar observations and especially was it noted in Case 4, for example, where there was a history of considerable physical and mental deterioration extending over many years, that, given after the treatment of dental and gynaecological sepsis, the mental and physical improvement which followed was attributable largely to the treatment by prontosil.

#### *(4) The Intermediate Administration of these Agents.*

There are some cases in the series which illustrate the intermediate administration of these agents in relation to the Surgical treatment of sepsis.

Here the agents have been employed after some sepsis has been treated surgically but before it has all been removed or drained, in the hope of assisting healing in the tissues which have been operated on and removing as far as possible infection; especially streptococcal, from areas to be operated on later.

Case 29 is an example where these agents were thus used on four occasions during the course of the treatment of sepsis. The first occasion was the treatment of acute faucial and pharyngeal sepsis and here objectively a striking improvement succeeded the injections. Since the first prontosil course there was a complete absence of obscenity. She herself recognized that she then came to herself.

On this occasion the prontosil appeared to assist reduction of the sepsis and there was no excessive or following pyrexia. Later, however, after removal of septic tonsils it appeared that a pyrexia followed the administration of the prontosil, but after healing was more or less completed there was no following pyrexial reaction. The erythrocyte and leucocyte counts rose following this treatment and the mental state improved.

Finally, the treatment was given after completion of surgical treatment and now patient recognized a sedative effect, restful sleep was induced.

Other cases in which the agents were given in an Intermediate position are Cases 6, 12, 16, 23 and 34.

#### *Some Statistics of the Employment of Prontosil in Relation to Surgical Treatment.*

In these various relations to the treatment of sepsis in the several locations of disease these agents have been employed and some statistics of this use are now given.

In 165 cases, 80 men and 85 women where the drugs were used principally in relation to the active surgical treatment of septic conditions of the teeth, mouth, ear, nose, throat and female genital tract. Of these at the time of review there were 82 cases showing physical improvement, 36 men and 46 women and with this physical improvement there was mental improvement in 73 cases, 30 men and 43 women. Death occurred in spite of the treatment in conditions of gravely diseased states in 5 cases, two men and three women. In all these there were complex conditions of septic disease.



*Rest during Treatment.*

As in all conditions of disease freedom from environmental stimuli should obtain and especially should any patient who is under this treatment even by mouth be allowed complete rest.

*Unusual Types of Reaction.**"Following Pyrexia."*

Reference has been made in the literature to the appearance of pyrexia *following* the administration, usually by injection, of prontosil, an example is Case 29. Here it would appear that the effect was due not so much to the agent because subsequently given, both by injection and mouth, there was no "following pyrexia." The conclusion is that the septic condition is itself responsible, a focal reaction is set up therein which is the cause of the temperature.

*Collapse Reaction.*

In two cases this reaction was marked. One was a case of gonorrhoea who had resisted local and non-specific protein therapies but after only 5 c.c. prontosil rapidly collapsed, but recovered to her usual condition. Later a smaller dose produced the same effect, but injections later of a standard gonococcal vaccine had no effect whatever of this character. In the other case there had been some chronic pulmonary tuberculous condition which appeared to have improved but without improvement on the mental state, which was one which over a long time had required perpetual watchful care. On the view that there was a chronic bacterial toxæmia from the fibrosed lungs 10 c.cs. of prontosil were given. Collapse ensued, followed by recovery. From then onwards, gradual physical mental improvement ensued. Later both patients were discharged in better physical and mental health than they had shown for several years.

*Cyanosis with Sulphaemoglobinaemia.*

These conditions have been watched for and so far they have not appeared.

*Publications.*

"Nasopharyngeal Sepsis in 2,056 cases of Mental Disorder."

"The Importance of Closed Sepsis," by Dr. T. C. Graves, F.R.C.S. *British Medical Journal*, vol. i, pp. 483 to 486, March 6th, 1937.

"Traitement Rationel des Maladies Mentales," par T. C. Graves, Conference faite le 12 août 1937 dans le Service de Neuro-Psychiatrie de l'Hôpital de la Pitié (Prof. Laignel-Lavastine). *Journal de Medecine de Paris*, No. 48, 2 decembre, 1937, p. 901.

"The Treatment of the Patient—First Things First," by T. C. Graves, F.R.C.S. *Proceedings of the Mental Hospitals Association*. Nineteenth Annual Meeting of the Association, Guildhall, City of London. July 13th, 1937.

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*CASE 1.—A case where confusion ceased after Treatment of Dental Sepsis but recurred after Delivery, seven years after discharge from Mental Hospital, and again ceased after Treatment of Tonsillar Sepsis.*

7326. M. I. M., female, single, capstan hand, aged 19 on first admission to mental hospital on January 22nd, 1929.

*History. Family.*—Father, moderate drinker, died of cancer at 62. Mother died of (?) phthisis at 40. No mental disorder in family except one maternal aunt who was “peculiar and very wild” and, like her brother, died of tuberculosis. A sister died, aged twelve, of meningitis (?) tuberculous. One sister alive and healthy.

*Personal.*—Incontinent until three years of age. Brought up in an orphanage until 8 years. Showed average intelligence at school and started factory work at 14 years. Always rather peculiar, sulky and cheeky alternately, she “got friendly with a rough lot of girls and turned rowdy” and at 18 ran away from her stepmother with whom she had been living. There was a history of a head injury, fall on back of head, although no concussion, but several abscesses in the scalp followed. Menstruation had been regular but scanty, associated with headaches.

*Present illness.*—Onset was sudden, she turned against her people, wandered away from home, showed poor memory and was unable to do simple business, became completely lost, displayed unnecessary anger, impulsively homicidal and destructive. These symptoms developed rapidly within two weeks. Admitted into hospital she was found to be restless, excitable, continually shouting, singing, laughing or crying, unable to give the day or month, noisy, impulsive, unable to dress or undress herself, attempting to destroy her clothing, often dirty in habits and violent.

*On Admission to Mental Hospital.*—Height 5 ft. 1½ in. Weight 5 st. 11½ lbs. Temperature 97·6° F. Pulse 76. Respirations 18. Appears under-developed, in poor general health, and right side of face appeared to be smaller than left. Abscess scar in right anterior triangle of neck from a (?) tuberculous gland but no lymph glands enlarged.

Cardiovascular mechanism normal. B.P. 120/84 mm. Hg. Sallow complexion. Lungs, harsh breath sounds right apex behind, rales left apex behind, no other signs.

Tongue and lips dry, sordes. Tonsils enlarged, pus in right. Some carious teeth, pyorrhoea. Both parts palate congested. Pupils normal, internal squint left eye. Slight right ptosis. Left blepharospasm. Reflexes normal. Sphincters under control. Muscular system poor tone and development. Gynaecologically, apparently intact, no discharge or abnormality. Blood, Wassermann reaction and Widal tests all negative.

Ear Nose and Throat Examination.

Nose. Anterior rhinoscopy, right, nil : left, mucopus in middle meatus.

Tonsils. Left pus, right septic.

Nasal Sinuses. Transillumination, antra and frontals both dim.

Ears, Left, great retraction of drum ; right, normal.

Mental state : grimaces, giggles, exalted, excited, attention poor. Hears “voices,” “all the while.” Her aunt’s voice says “Is she English ?” Long latent period, association of ideas retarded. Some disorientation. Recent memory poor. Judgment and insight lost.

Resists nursing attention. Impulsive at times. Habits inclined to be faulty.

*Progress.*—During the ensuing weeks of February and March medicinal measures and the regime of the admission ward assisted her general health. She gained nine pounds in weight but there was no remarkable alteration in the mental state. She continued to show violence, filthy language, auditory hallucinations, mental confusion, erratic conduct and faulty habits.



During April to June in sessions, dental treatment was given including the removal of buried roots, carious teeth and a malerupting wisdom. This was completed by June 7th.

By the end of June it was clear that there was a remarkable change in her condition mentally and physically. She had gained 16 lbs. since admission and all the acute mental symptoms had subsided. She was now calm and composed, clean in habits, working and well behaved.

Her relatives now moved for her discharge to their care and this was granted on July 11th, 1929.

She was readmitted to mental hospital as :—

F. 1716. M. I. H., female, married, aged 27 years on second admission to mental hospital on February 19th, 1937.

She appears to have been steadily employed till she was married in April, 1935 and continued work till August, 1936, when she was six months pregnant.

Up to this time she had suffered from winter colds and occasional sore throats, No other illnesses. During pregnancy she attended at Welfare Centre and her private doctor and went into a Maternity Hospital for her confinement because of slightly contracted pelvis. There appears to have been no abnormality at delivery, a slight fever at beginning of lactation and she left hospital after 15 days. She was fairly well during early Puerperium, but the baby was delicate and the mother got little sleep or rest. Frontal headaches and a feeling of lassitude came on and she developed Herpes on left breast. She says "the milk turned sour" and she was obliged to wean the baby. She described a mist before her eyes at this stage and a state of confusion rapidly succeeded. The baby died two weeks after the mother's admission to hospital.

*On Admission to Mental Hospital. Mental State.*—She was deeply confused, hallucinated, noisy, faulty in habits and had to be spoon-fed.

*Physical.*—She was poorly nourished, anaemic, and in a low state of general health. Several teeth carious and the gums infected. Marked bilateral ptosis, pupils unequal—right larger than left—and a divergent squint present. Wassermann in blood and C.S.F. negative. Urine and faeces contained no abnormality. Blood pressure rather low. Amenorrhoea.

*Progress of Case.*—February 27th, 1937. Gynaecological Examination revealed slight congestion of the Vaginal walls and hypoplasia of the uterus but no local treatment was considered necessary.

March 2nd, 1937. Ear, nose and throat examination showed liquid pus in both tonsils, muco-pus in the post nasal space and oedematous middle turbinate on the left side. At this date she was vividly hallucinated, noisy, restless, impulsive, sleeping badly and having to be spoon-fed.

March 22nd, 1937. Four teeth were extracted under general anaesthesia. Following this she had a course of Collosol Sulphur, doses 1–5 cc. intramuscularly. Temperature reaching maximum of 103° F. after last dose.

April 20th, 1937. Tonsillectomy and general sinus examination carried out under general anaesthesia. No pus found in the sinuses but the tonsils were heavily infected. Argpyrol 10 per cent. instilled into all sinuses.

May 4th, 1937. Patient developed a Herpes on left side of chest.

June 7th, 1937. Further dental examination showed a healthy mouth and X-ray of jaws no abnormality.

In May she began to put on weight and at the end of the month was able to sit up. She was still confused, restless, uncertain and dirty. In July she had a course of T.A.B. vaccine in doses of  $\frac{1}{4}$  to 5 c.c. intramuscularly. She showed little reaction to this but about the end of July the confusion lessened and from the middle of October progress was really marked.

She became bright, cheerful, clean, ready to help in the ward and able to go on leave of absence from hospital. She had put on 1½ st. and menstruated for first time on November 26th, 1937. Ptosis markedly less and pupils equal. She said she had no headaches or visual discomfort.

She was discharged on December 9th, 1937.



CASE 2.—*A case of Adolescent Psychosis, associated with Tonsillar, Sphenoidal and Dental Sepsis, together with Dental (Wisdom) Impaction, clearing after Treatment of these Associated Conditions and especially after the use of Prontosil.*

F. 1581. L. F. S., female, single, pressworker, aged 22 years on first admission to mental hospital on January 22nd, 1936.

*History. Family.*—None Psychotic.

*Personal.*—At 14 years she started work and in following year had an abscess at root of first lower right molar. The tooth was extracted and she went back to work but a few weeks later she entered a hospital with a "nervous breakdown."

At 18 years she had further Dental extractions.

From September, 1935, she felt great difficulty in concentrating at work and was finally sent home as useless. She became mischievous, interfering and impulsive.

*On Admission. Mental.*—She giggled and chattered in a foolish, childish manner, resented examination and became antagonistic. Had auditory hallucinations.

*Physical.*—General health fair. Dental caries present. Acne of face. Left convergent squint. Wassermann reaction negative in blood.

*Progress of Case.*—February 17th, 1936. Five teeth extracted under general anaesthesia.

March 2nd, 1936. Four teeth extracted, one being a partially unerupted right upper wisdom.

March 30th, 1936. Mouth healthy.

At this time her behaviour had become worse. She was impulsive, mischievous, dirty and destructive. She was also losing weight.

A course of Collosol Sulphur was given at this stage but there was little reaction and no improvement following.

June 23rd, 1936. Dissection of Tonsils under general anaesthesia. She recovered well from operation but her mental state was even worse. She was now abusive, aggressive, filthy in habits and continually tearing off her clothes.

In September anti-scarlet serum was given in doses of 5.5.5. 10 and 10 cc. at three day intervals. She showed improvement, clean in habits and exhibiting an interest in her surroundings and this condition assisted in carrying the treatment a stage further by on October 27th a general sinus examination under general anaesthesia. Pus was found in the right sphenoid which was drained. Argyrol 10 per cent. was instilled into all sinuses. In November she relapsed again and did this intermittently up to June, 1937.

In March, 1937, she had a course of T.A.B. vaccine in doses of  $\frac{1}{2}$  to 5 cc. intramuscularly. She gave no reaction to this. In April she had four injections of Prontosil—3.3.4 and 5 cc.

Catamenia which had been in abeyance from May, 1936, was resumed in June, 1937. From the same date she put on weight and showed marked improvement in colour and facial mobility. Mental condition steadily improved now. She became bright, cheerful, a useful worker and much interested in her personal appearance. Hallucinations had quite gone.

A good worker in laundry, sewing room and ward. Week-end leave of absence. December 9th, 1937, discharged from hospital.

CASE 3.—*A case of Confusion Clearing after Treatment of Gynaecological, Dental (including Wisdom Impaction) and Tonsillar Sepsis.*

F. 1758. I. W., female, married, brassworker, age 21 on admission to mental hospital on July 6th, 1937. First certification.

*History. Family.*—No psychotic, epileptic or tubercular history.

*Personal.*—Attended school to 14 years and showed average intelligence. Became a brassworker. Married March, 1937, and continued her factory work.

She had measles in childhood and influenza several times since starting work. Frequent sore throats.

About one month after marriage she began to have frequent headaches and became depressed, lost interest in her work and house. Finally she became confused and was admitted to hospital.



*On Admission. Mental State.*—She was hallucinated, deluded, negativistic and impulsive. She chattered incoherently, smiled foolishly, refused her food and was dirty in habits.

*Physical.*—She was in a toxic condition, anaemic, with cardiac irregularity and poor peripheral circulation. Dental sepsis present. Wassermann negative.

*Progress of Case.*—Gynaecological examination showed she had a congested vagina and retroverted uterus. A Hodge pessary was inserted and appropriate douches given.

In July patient had a course of collosol sulphur intramuscularly in doses of 1-5 cc. Maximum temperature of 102.4° F. reached after 5th dose.

She continued to be hallucinated, noisy, resistive and impulsive. She was dirty in habits and had to be spoon-fed. Her expression had become sullen, angry and fixed.

September 6th, 1937, under general anaesthesia an upper left unerupted wisdom tooth was extracted.

September 28th, 1937, ear, nose and throat examination showed scarred tonsil stumps on both sides, mucous streaks in nostrils and an old perforation of right ear-drum.

By this time the patient was showing some improvement—eating and sleeping well and clean in habits—but still confused, asocial and uncertain.

October 12th, 1937, dissection of tonsils stumps under general anaesthesia. Improvement rapid now. Confusion clearing, hallucinations and delusions gone and patient employing herself usefully and taking an interest in her own appearance.

November 24th, 1937, catamenia returned having been in abeyance since admission. Worked in ward and laundry. Weekend leave.

December 9th, 1937. Patient left hospital. She was bright, cheerful and had regained her facial tone. Colour was good and she had gained two stones in weight.

*CASE 4.—A case of Old Gynaecological (Puerperal), Dental and Cutaneous Sepsis of many years' duration in which Psychosis developed but ceased after Treatment of Sepsis.*

F. 1763.—K. A. W., female, married, living apart, age 44 on admission to mental hospital on July 19th, 1937. Second certification.

*History. Family.*—No psychotic history.

*Personal.*—She was very ill after confinement in March 1921, and in the following September had a radical operation for acute left mastoid. In December of the same year she was certified and in mental hospital for 10 months.

She has not been well since then and has done no regular work. In 1934 she lost 2 stones in weight and in 1935 had neuritis of left arm. After other treatments had failed she had her jaws X-rayed and was advised to have teeth extracted. She had a few teeth out, developed a rash on her chest and refused further treatment.

During 1936 she was in and out of general hospitals several times. She became mentally more unstable and after threatening suicide, certification was necessary in July 1937.

*On Admission. Mental.*—She was depressed, agitated, hypochondriacal and emotionally unstable with a tendency to become grandiose.

*Physical.*—General health poor. Loss of weight evident. Dental sepsis gross. Diffuse copper-coloured rash all over body. Hair broken and pulled out. She said she did this because of the discomfort in her stomach. She also complained of pain in left arm and headaches.

*Progress of Case.*—July 22nd, 1937. Wassermann in blood negative.

July 26th, 1937. Dental clearance advised.

July 30th, 1937. X-ray of oesophagus and stomach gave normal results.

August 3rd, 1937. Ear, nose and throat examination. Antra dark on transillumination. Tonsils buried and adherent but no other abnormality.

August 9th, 1937. Five dental extractions under general anaesthesia.

August 21st, 1937. Gynaecological examination. Vagina congested. Cervix badly lacerated and septic with granulation tissue in endocervix. The latter was curetted and a course of local treatment begun.



Patient had been in hospital a month now and though she was eating and sleeping well at this stage she was still depressed, deluded and emotionally unstable.

August 23rd, 1937. Two teeth extracted under general anaesthesia.

September 6th, 1937. Five teeth extracted under general anaesthesia. Through September she showed steady progress, was becoming more cheerful, free from headaches and putting on weight. She had also stopped pulling out her hair. Amenorrhoea since admission.

October 7th, 1937. Wassermann in blood and C.S.F. negative.

October 8th, 1937. One root stump extracted.

October 22nd, 1937. Four teeth extracted under general anaesthesia.

November 5th, 1937. Seven teeth extracted under general anaesthesia. Edentulous now.

After dental clearance patient had a short course of prontosil 1-5 cc. by intramuscular injection. There were no untoward symptoms following the injections, on contrary, mental and physical improvement now became marked. She conversed brightly, was alert and cheerful, helped in the ward and went out on leave. She said she was free from headaches and neuralgia, for the first time in many years.

She was discharged on December 9th, 1937. Her hair then was growing uniformly and well.

Menstruation had not, however, returned.

*CASE 5.—A case of Melancholia not Clearing Up until after Removal of Oronasopharyngeal Sepsis. Treatment by Sulphur and Tryparsamide Coincidentally.*

W. H. L., male, aged 35 years, single, salesman, admitted to mental hospital on October 9th, 1936. Second certification.

*History of Present Condition.*—Admitted to mental hospital in similar condition on June 30th, 1936, but relatives refused consent for treatment and insisted on discharge. Discharged relieved on August 13th, 1936. Had severe pains in head for four months prior to first admission.

*Past History.*—Contracted syphilis 6 years ago.

*Family History.*—Mother stated to have been "funny" for short time.

*Condition on Admission. Mental State.*—Depressed, agitated, abnormally introspective. Said he was loved by all the King's Horses and all the King's men—that he was Banana King of Birmingham. Spoke vaguely of conspiracies.

*Bodily Health.*—General health fairly good. Marked oronasopharyngeal sepsis. Wassermann reaction positive in blood. Cerebrospinal fluid normal. No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations were begun and continued at intervals throughout treatment for which consent was now gladly forthcoming. During December, 1936, and January, 1937, 7 septic teeth were removed. There followed a course of aqueous colloidal sulphur injections intramuscularly. Four injections of 2 cc. were given at weekly intervals. There were good pyrexial reactions at the height of each 2 grammes tryparsamide were given intravenously. After this, improvement was marked. Less depressed and introspective. Less agitation. Able to work in ward.

On April 2nd, 1937, under general anaesthesia septic tonsils were removed. Large abscess found in left upper pole.

On April 26th, 1937, there was very little depression, no agitation, and quite good insight. Had gained 11½ lbs. in weight since admission.

On May 7th, 1937, under general anaesthesia, general nasal sinus examination was done. Pus found in right sphenoid and left antrum. Both sphenoids and both antra were drained.

Then followed a course of aqueous colloidal sulphur injections intramuscularly. 0.5 cc. given, rising by 0.5 cc. every other day until 2.5 cc. had been reached. Good pyrexial reactions.

On June 26th, 1937, he was well orientated, cheerful, happy, contented. Realised he had been mentally ill, was grateful for treatment, not depressed or agitated. Insight very good. No delusions. Colour and muscle tone very much improved. He was discharged on one month's trial on July 8th, 1937, being finally discharged. Recovered on August 12th, 1937.



On first admission: Widal test was negative for all organisms except B. Dysent. Y. 42 Oxford units. Bacteriological examination of the faeces was wholly negative for pathogenic organisms.

On second admission: Widal test was negative for all organisms except B. Dysent. Y. 12 Oxford units and bacteriological examination of the faeces was still wholly negative for pathogenic organisms:

*CASE 6.—A case of Stupor with Retrobulbar Optic Neuritis with Dental Sepsis and Pan-Sinusitis. Treatment of the Latter followed by Amelioration of the Former.*

N. R. M., male, single, labourer, aged 26 years on first admission to mental hospital on November 19th, 1936.

*History of Present Condition.*—Had alternating periods of lucidity and confusion for five weeks prior to admission. Became exceedingly depressed, then stuporose, with occasional attacks of impulsive violence. Refused food.

*Past History.*—Had malaria while in India in Army. Discharged from Service in January, 1936.

*Family History.*—Brother at present in mental hospital.

*Condition on Admission. Mental State.*—Dull, apathetic, almost stuporose. Subject to auditory hallucinations. Said life was not worth living. Wanted to poison himself. Very depressed, retarded and confused. Imperfectly orientated in time and place. Occasionally impulsive. Without insight.

*Bodily Health.*—General state fairly good. Marked evidence of oronasopharyngeal sepsis. No evidence of organic disease in major viscera or in nervous system. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative.

*Progress.*—Continuous colon irrigations were begun and continued at intervals throughout treatment.

On December 31st, 1936, two septic teeth were removed and on January 30th, February 1st and February 3rd, 1937, 10 cc. antiscarlet streptococcal serum were given intramuscularly on account of the dubious condition of the remaining teeth.

On February 6th, 1937, the Visiting Ophthalmologist reported:—

“This patient is developing a retrobulbar neuritis on right side from the antrum which is dim and tender to pressure.”

On the same day, under local anaesthesia, both antra were investigated by Watson-Williams' suction technique. The right showed haemorrhagic return—no pus. Left antrum showed thick pus—no haemorrhage. Swabs were taken for culture and argyrol injected.

On February 27th, 1937, ophthalmic examination showed normal condition in both eyes.

On April 15th, 1937, three septic teeth were removed and on April 30th, 1937, under general anaesthesia, both antra were found full of pus and drained intranasally.

On May 26th, 1937, he was considerably improved both mentally and physically. No longer suicidal, said life was worth living. Not then hallucinated or stuporose. Remained somewhat depressed and apathetic.

On June 3rd, 1937, two septic teeth were extracted and on June 18th, 1937, under general anaesthesia, general sinus examination was carried out. Pus was found in right sphenoid which was drained intranasally. All other sinuses clear. Antral openings patent.

On July 2nd, 1937, under general anaesthesia, tonsillectomy was performed. Tonsils were large, infected and adherent.

In August, 1937, began course of aqueous colloidal sulphur injections intramuscularly. 0.5 cc. was given, increasing by 0.5 cc. every other day until 2.5 cc. had been reached. Good pyrexial reactions.

On September 30th, 1937, he was well orientated, replied briskly to questions, had good insight. Not hallucinated, said life was worth living. Still showed some depression and retardation.

In October, 1937, short course of prontosil given. 2, 3, 5, 10 cc., given intramuscularly on alternate days.

On October 15th, 1937, under general anaesthesia, general nasal sinus examination again carried out. Sphenoidal and antral openings patent. Pus found in both



sphenoids, both antra and in ethmoids. All sinuses washed out and both middle turbinates removed.

On November 4th, 1937, five further teeth were found to have deteriorated and were removed. Ophthalmic examination on November 6th, 1937, showed eyes to be normal.

Since then he has improved considerably both mentally and physically. At the time of reporting he remains in hospital on account of a residuum of depression and retardation, but he is well orientated, contented, not confused, hallucinated nor deluded and states that life is worth living. He sleeps in non-observation dormitory and works well out of doors. Colour and muscle tone much improved.

Weight has increased from 9 st. 7 lbs. on admission, to 10 st. 4 lbs.

*CASE 7.—A case of Relapse after Recovery following Previous Treatment of Oronasopharyngeal Sepsis for Psychosis but Renewal of Recovery after Removal of Previously Conserved Teeth and Treatment by Prontosil.*

N. L. Y., male, single, aged 27 years, labourer, admitted to mental hospital on October 14th, 1936. Second certification.

*History of Present Condition.*—In early October, 1936, he was not feeling well with head pains. While digging post holes he became confused. Later found lying in church. Removed to hospital.

*Past History.*—Had been in mental hospital from June 7th, 1935, to February 13th, 1936. He was then depressed, apathetic, refusing food. Recovered after removal of septic teeth and tonsils and employment of non-specific therapy and continuous colon irrigations. There was no relevant family history.

*Condition on Admission.*—*Mental State.*—Apathetic. Almost stuporose. Quite mute. Required every care and attention.

*Bodily Health.*—General state fair. No obvious sepsis. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative. No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations were given at intervals throughout treatment. Radiographic examination of jaws revealed presence of two septic teeth.

Beginning on March 2nd, 1937, and ending on March 16th, 1937, 5 cc. prontosil were injected intramuscularly every other day and on March 18th, 1937, under ethyl chloride anaesthesia the two septic teeth were removed.

Two further injections of prontosil 5 cc. followed on alternate days.

At end of March, 1937, he was a much improved patient, up and about, he worked willingly and well in ward. Conversed well. Not confused.

On May 7th, 1937, he was cheerful, well orientated, happy, with good insight. Realized he had been mentally ill, was grateful for treatment. No head pains now. Conversed normally. Colour and muscle tone much improved. Working out of doors, had been on week-end leave.

Weight had increased from 8 st. 12½ lbs. on admission to 10 st. 2 lbs.

He was discharged on one month's trial on May 13th, 1937, being finally discharged recovered on June 10th, 1937.

*CASE 8.—A case of Psychosis associated with Alcoholic Indulgence and the Presence of Oronasopharyngeal Sepsis and its Cessation after Treatment of Sepsis.*

F. A. W., male, single, aged 34 years, barman, admitted to mental hospital on July 14th, 1937, as a voluntary patient.

*History of Present Condition.*—Had been in several jobs prior to admission, including that of barman. Indulged freely in alcohol. Became depressed, unable to concentrate and subject to auditory and visual hallucinations. No relevant past history or family history.

*Condition on Admission.* *Mental State.*—Depressed, apathetic, unable to concentrate, subject to auditory and visual hallucinations. Well orientated, with good insight.



*Bodily Health.*—General state fairly good, appearance bloated. Marked oropharyngeal sepsis. Dilated venules on nose with extreme blueness. Wassermann reaction negative in blood. No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations were given at intervals throughout treatment. On August 12th, 1937, four septic teeth were removed under general anaesthesia and 2 more on August 26th, 1937, the remaining teeth being healthy.

In October, 1937, he was up and about, much less depressed, no longer hallucinated. Felt weak and unable to concentrate but his general state was improved, there was a lessening of the bloated appearance. Weight had diminished from 10st. 1lb. on admission to 9st. 6lbs., but nose remained markedly blue in colour.

Bromide had been given for Insomnia during September, 1937, but this was now stopped.

On October 22nd, 1937, under general anaesthesia tonsillectomy and general nasal sinus examination were performed.

The right antrum was found to be haemorrhagic and was drained. Tonsils were large, adherent, heavily infected.

On November 7th, 1937, began a course of aqueous colloidal sulphur injections intramuscularly. 0.5 c.c. were given, increasing by 0.5 c.c. every other day until 2.5 cc. had been reached. Good pyrexial reactions were obtained.

On December 14th, 1937, he was well orientated, cheerful, happy, able to concentrate. Worked well in ward. Insight remained good, was grateful for treatment. Promised to abstain from alcoholic indulgence. No hallucinations or delusions.

Colour and muscle tone much improved, as well as general health. Nose was now red in colour. Appearance no longer bloated. Weight now 9st. 6½lbs.

He discharged himself with medical approval on December 14th, 1937.

#### CASE 9.—*A case of Oronasopharyngeal Sepsis with Confusion and Depression with Anomalous Clinical Signs.*

R. P. B., male, single, aged 24 years, labourer, admitted to mental hospital on December 2nd, 1937. First certification.

*History of Present Condition.*—Had been out of work in Ireland for many months. Came to England to find work but was employed only for short while and was forced to beg. Became strange, deluded, hallucinated.

*Past History.*—Reached Standard 5 at 14½ years. No relevant family history.

*Condition on Admission. Mental State.*—Depressed, emotional, hypochondriacal. Admitted auditory hallucinations.

*Bodily Health.*—General state fairly good. Signs of oronasopharyngeal sepsis. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative.

No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations have been given at intervals throughout treatment.

On December 16th, 1937, under ethyl chloride anaesthesia, seven teeth and 2 roots, all septic, were removed.

Subsequent radiographic examination of jaws showed presence of root stump of second lower right bicuspid with periapical abscess. This was removed on January 20th, 1938, patient being now edentulous.

The ear, nose and throat condition is of much interest and importance in view of the disharmony between findings at Clinical examination and those at the operation, both of which were carried out by the same Surgeon.

The clinical finding on January 7th, 1938, given in full, are as follows:—

Tonsils. Both adherent. Pus in both.

Posterior nasal spaces. Both inferior turbinates oedematous. No pus visible.

Anterior nasal spaces. Left inferior turbinate oedematous.

Film of mucopus over whole of right nostril.



Ears. Both drums normal.

Nasal sinuses on transillumination: Antra.—Left dim. Right black. Frontals.—Clear.

On February 4th, 1938, under general anaesthesia, general nasal sinus examination was carried out by the Watson-Williams' suction technique.

The findings were:—Sphenoids.—Both 4in. Both clear. Ethmoids.—Left. Flakes of pus. Right. Clear. Antra.—Left. Thick inspissated pus. Right. Flakes of pus.

It was therefore mainly a left-sided disease although the clinical findings pointed to a right-sided diseased state. Both antra were drained intranasally and argyrol injected into all sinuses.

On February 5th, 6th and 8th, 2, 3 and 5 cc. Prontosil were injected intramuscularly.

On February 18th, 1938, under general anaesthesia, infected adherent tonsils were removed.

Colsulanyde powders were then given 3 times daily for 14 days. He is progressing mentally and physically.

CASE 10.—*A case of Confusional Psychosis associated with Pharyngeal Sepsis, Unerrupted Canine Tooth and a History of Colitis.*

W. G., male, aged 35 years, single, toolmaker, admitted to mental hospital on May 3rd, 1937. First certification.

*History of Present Condition.*—In October, 1936, he had all his teeth removed on medical instruction on account of Pyorrhoea and severe neuralgia which had been present for years. Teeth were removed at three sittings, during which time he developed colitis necessitating absence from work for 1 month. In April, 1937, he developed tonsillitis and colitis. Then became confused, depressed and fearful. Subject to severe bifrontal headaches.

*Past History.*—Subject to sore throats and nasal catarrh.

*Family History.*—Father treated in mental hospital.

*Condition on Admission. Mental State.*—Depressed, apathetic, apprehensive. Completely lost in time, tends to incoherency, very confused.

*Bodily Health.*—General state fairly good. Tonsils septic. Now apparently edentulous. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative. No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations were begun and continued at intervals throughout treatment.

Radiographic examination of jaws showed an unerupted right upper canine which was removed under general anaesthesia on July 8th, 1937. On July 30th, 1937, under general anaesthesia the nasal sinuses were explored and irrigated but found to be devoid of exudate.

In August, 1937, he was much improved. Not now confused, much less depressed. Worked willingly.

On September 3rd, 1937, under general anaesthesia, septic adherent tonsils were removed. Then followed a course of Prontosil intramuscularly 2, 3, 5 and 5 cc. being given on successive days. On September 30th, 1937, he was well orientated, cheerful, happy, contented. Realized he had been mentally ill, was grateful for treatment. No depression, confusion or apathy. Colour and muscle tone much improved. Worked out of doors, had been home on week-end leave.

Stated that headaches disappeared after removal of unerupted canine. He then felt life to be worth living.

Weight had increased from 8st. 2lbs. on admission to 8st. 12lbs. He was discharged recovered on October 21st, 1937.

CASE 11.—*A case of Psychosis associated with, and Ameliorated by, Treatment of Oropharyngeal Sepsis.*

H. E., male, single, aged 28 years, tube worker, admitted to mental hospital on August 27th, 1936. First certification.

*History of Present Condition.*—Became unemployed at 21 years of age. Very depressed and worried afterwards. Felt weak and nervous. Lost interest. No work since. Recently threatened to poison himself. Bad tastes on tongue for three months prior to admission.



*Past History.*—Always subject to head colds and influenza. Had had appendix removed when 16 years. Tonsillitis two years ago. No relevant family history.

*Condition on Admission. Mental State.*—Evasive, shifty, suspicious, agitated, hypochondriacal. Delusions of persecution. Said people were talking about him. Insight lacking. Considered to be actively suicidal.

*Bodily Health.*—General state fairly good. Teeth septic. Tonsils large and unhealthy. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative. No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations were given at intervals throughout treatment.

By December 3rd, 1936, 25 septic teeth had been removed in 5 sessions under general anaesthesia.

On December 11th, 1936, under general anaesthesia his septic tonsils were removed. Then began course of aqueous colloidal sulphur injections intramuscularly. 0·5 cc. were given, increasing by 0·5 cc. every other day until 2·5 cc. had been reached. Good pyrexial reactions.

On February 5th, 1937, he had improved, but was still rather depressed and agitated.

Had fairly good insight. No delusions or hallucinations present.

He worked well out of doors. Had gained weight. Not suicidal.

On May 7th, 1937, he was well orientated, cheerful, happy. Realised he had been mentally ill, was grateful for treatment. No depression, agitation, delusion or hallucination. Stated life was worth living. Conduct excellent, worked out of doors, interested in most things. Conversed well. Colour and muscle tone much improved. No bad tastes now. He felt well enough to work hard at his own work if discharged. Weight had increased from 8 st. 1 lb. on admission to 9 st. 2 lbs. He was given three months' trial from May 13th, 1937, being finally discharged, relieved, on August 12th, 1937.

*CASE 12.—A case of Profound Stupor preceded by Suicidal Attempt, considerably Ameliorated by Removal of Gross Oronasopharyngeal Sepsis together with the use of Serum and Prontosil to Combat Residual Infection.*

J. Q., male, married, aged 35 years, shopkeeper, admitted to mental hospital on March 27th, 1936. First certification.

*History of Present Condition.*—Considerable financial and domestic worry for some months prior to admission. Became depressed and confused. Attempted suicide by gas poisoning.

*Family History.*—None of importance.

*Condition on Admission. Mental State.*—Admitted in stuporose condition. Complete apathy requiring every care and attention. Quite mute. Wet bed.

*Bodily Health.*—General state fairly good. Gross dental and tonsillar sepsis. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative. No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations were given at intervals throughout treatment. In spite of extreme apathy he proved a determined suicide making several abortive attempts on his life.

10 cc. antiscarlet streptococcal serum were given intramuscularly on April 24th and again on April 29th. Two septic teeth were extracted on May 1st, 1936, but thereafter considerable opposition to treatment was encountered on the part of the relatives.

It was not until December, 1936, that any further removal of sepsis could be done. During that month 17 septic teeth were removed, the patient being thereby rendered edentulous.

In March, 1937, he was still apathetic, mute, depressed but not actively suicidal.

On April 23rd, 1937, under general anaesthesia septic tonsils were removed and nasal sinuses explored. These were found to be devoid of exudate.

On April 26th, 27th, 28th, 5 cc. prontosil were given intramuscularly.

On April 30th, May 2nd and 4th, 10 cc. antiscarlet serum were given intramuscularly.



On May 21st, 1937, under general anaesthesia, ethmoidal polypi were removed from the right side.

Then followed a course of aqueous colloidal sulphur injections intramuscularly. 0.5 cc. were given, increasing by 0.5 cc. every other day until 2.5 cc. had been reached.

On September 30th, 1937, he was very much improved. Well orientated, cheerful, replied briskly to questions. Good sphincter control. Stated life was worth living. No depression. Quite sociable. Colour and muscle tone much improved. Worked out of doors. Had been out on leave of absence.

Weight had increased from 8 st. 12 lbs. on admission to 9 st. 12½ lbs. Although his insight into his condition was not all that could be desired, it was felt that he was improving every day and he was discharged on October 21st, 1937, to the care of his relatives.

CASE 13.—*A case of Psychosis clearing after Treatment of Dental Sepsis and Impaction of Wisdom Tooth with Tonsillar Sepsis.*

A. L. F., male, single, aged 23 years, labourer, admitted to mental hospital on August 24th, 1936. First certification.

*History of Present Condition.*—Became depressed in June, 1936. Pains in upper and lower jaws, occipital and frontal headaches for six months prior to admission. Developed humming noises in right ear in June, 1936. Begal to feel life was not worth living.

*Past History.*—Always subject to colds in head and nasal catarrh.

*Family History.*—Brother also in mental hospital. Father died of consumption.

*Condition on Admission. Mental State.*—Depressed, emotional, persecuted. Said calomel tablets were poison. Ideas of unworthiness. Subject to auditory hallucinations.

*Bodily Health.*—General state fairly good. Tonsils septic. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative. No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations were given occasionally throughout treatment.

On November 20th, 1936, under general anaesthesia septic tonsils were removed.

On December 3rd, 1936, four septic teeth were extracted. On December 17th, 1936, left upper unerupted wisdom tooth extracted.

At the end of November, 1936, i.e., after tonsillectomy, headaches ceased.

Pains in jaws ceased as soon as teeth had been removed.

In January, 1937, he was given a course of aqueous colloidal sulphur injections intramuscularly 0.5 cc. were first given increasing by 0.5 cc. every other day until 2.5 cc. had been reached. Good pyrexial reactions.

On February 5th, 1937, he was much less depressed and well orientated. No delusions or hallucinations. Worked out of doors.

On April 29th, 1937, four lower incisors also now septic were removed.

In June, 1936, he was well orientated, cheerful, happy, contented. Realized he had been mentally ill, was grateful for treatment. No longer depressed, hallucinated or deluded. Insight good. Worked well out of doors. Had been on leave of absence. Colour and muscle tone much improved. Said life was worth living. Was especially glad that headaches and jaw pains had disappeared.

Weight had increased from 8 st. 8½ lbs. on admission to 9 st. 3 lbs.

He was discharged on one month's trial on July 5th, 1937, being finally discharged, recovered, on August 12th, 1937.

CASE 14.—*Oral Sepsis in a case of Psychosis with a History of Head Injury. Amelioration of Psychosis following Treatment of Sepsis.*

L. B. H., male, married, aged 31 years, traveller, admitted to mental hospital on July 29th, 1937. First certification.

*History of Present Condition.*—Became depressed, and sleepless at Whitsuntide, 1937. Lost appetite and weight. Became deluded that he was to lose his job, that he was suffering from incurable syphilis contracted from his wife.



*Past History.*—Motor-cycle accident 3 years previously, resulting in slight concussion. Always subject to colds in head, nasal catarrh, periodic asthma. Resection of septum in 1926. No relevant family history.

*Condition on admission.*—*Mental State.*—Depressed, apathetic extremely resistive, refused food. Required every care and attention. Quite mute.

*Bodily Health.*—General state fairly good. Three septic, carious teeth seen in mouth. Wassermann reaction negative in blood. No evidence of organic disease in nervous system.

*Progress.*—He was less mute and resistive in August, 1937, but showed periods of mild confusion.

On September 15th, 1937, and again on September 28th, 1937, continuous colon irrigations were given.

On September 30th, 1937, three septic carious teeth removed.

On October 6th, 1937, he was well orientated, cheerful, grateful for treatment. Recognized that he had been mentally ill. No delusions and was on friendly terms with his wife.

Stated life was worth living. Appetite good. Good co-operation. Worked in ward and on garden.

Colour and muscle tone improved. Weight had increased from 9 st. 8½ lbs. on admission to 10 st. 5 lbs.

After having leave of absence at home with his wife he was discharged recovered on October 21st, 1937.

CASE 15.—*Confusion clearing after Removal of Septic Tonsils and Dental Sepsis with Impacted Unerupted Wisdom Teeth in a case of Albuminuria.*

H. C. L., male, single, aged 17 years, labourer, admitted to mental hospital on March 24th, 1937. First certification.

*History of Present Condition.*—Began to suffer from severe right frontal headaches soon after reaching sixteenth birthday.

One month before admission became strange in manner. Did foolish things about the house, became bad-tempered, struck his mother, very obsessed by football. Could not hold down a job. Bad smells in nose appeared.

*Past History.*—He always stammered badly. No relevant family history.

*Condition on Admission.* *Mental State.*—Simple, childish, apathetic, confused, disorientated. Lacking in insight. Marked stammer in speech.

*Bodily Health.*—General state fairly good. No evidence of organic disease in major viscera. Dental sepsis. Tonsils large and unhealthy. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative.

No obvious evidence of renal disease.

*Progress.*—Continuous Colon Irrigation given at intervals throughout treatment. Radiographic examination of jaws showed all four wisdom teeth unerupted and ill-formed, the two lower being also impacted. On July 15th, 1937, under general anaesthesia left upper and lower unerupted wisdom teeth were removed together with four other septic teeth.

After this he developed persistent slight albuminuria but on October 15th, 1937, it was decided to continue removal of sepsis in spite of this. On that date the heavily infected and adherent tonsils were removed under general anaesthesia.

He remained excitable but became fully orientated with fairly good insight.

On November 4th, 1937, under general anaesthesia, the right upper and right lower unerupted wisdom teeth with molars in front of them were removed. After this headaches disappeared.

On November 15th, 1937, he was well orientated, cheerful, calm, composed, co-operative, no longer impulsive or violent. Realized he had been depressed, confused and irritable. Was grateful for treatment. Stated life was worth living. Worked well in ward. Colour and muscle tone much improved. Weight had increased from 9 st. 1 lb. on admission to 9 st. 5 lbs. Severe stammer still present. Slight albuminuria still present.

He was discharged recovered on November 18th, 1937, to care of his parents who were well pleased with his condition.



CASE 16.—*A case simulating Primary Dementia, Recovering after Removal of Extensive Ear, Nose and Throat Sepsis. Abolition of Tinnitus Aurium after Mastoidectomy. Ligation of Internal Jugular.*

D. C. L., male, aged 25 years, single, lecturer, admitted to mental hospital on July 3rd, 1936. First certification.

*History of Present Condition.*—Always reserved but very intelligent. Qualified B.Sc. (Hons.), obtained Teachers' Diploma. In early 1934 quarrelled at youth hostel, fled to police, made written statement of plot against his family. Treated then for "glandular backwardness." In April, 1936, severely depressed. Fits of crying, insomnia, excessive thirst, impatient, threatening, fearful. Even bolted bedroom door at home. Then developed excessive desire to be out in the open. Frequent quarrels with strong-minded father. Considerable worry over debts and disappointment over love affairs. Began to devote all his time to study of sexual psychology. Developed auditory and visual hallucinations.

*Past History.*—Had always been subject to colds and catarrh. Concussed in 1924. Recently smoked heavily.

*Family History.*—Paternal aunt weak-minded. Great-grand-uncle periodically mentally ill. Both great-great-grandfathers stated to be "absolute drunkards." Several members of family subject to chronic nasal catarrh.

*Condition on Admission. Mental State.*—Apathetic, depressed, persecuted, subject to auditory and visual hallucinations. Said he was victim of a black-hand gang, that his father had tried to kill him. Irresponsible, vague, self-centred, evasive.

*Bodily Health.*—General condition fairly good. Obvious oronasopharyngeal sepsis. Wassermann reaction negative in blood and cerebrospinal fluid. Colloidal gold curve negative. No evidence of organic disease in nervous system.

*Progress.*—Continuous colon irrigations were begun and continued at intervals throughout treatment. On August 14th, 1936 left upper septic 2nd molar removed.

In September, 1936, he was less depressed but remained hallucinated and persecuted.

On October 22nd, 1936, 4 teeth, now obviously septic, were removed and on November 11th, 1936, tonsillectomy and right antral washout were performed under general anaesthesia, the antrum containing a little mucus.

On November 24th, 1936, began course of Aqueous Collosol Sulphur intramuscularly, 0.5 cc. being given, increasing by 0.5 cc. every other day until 2.5 cc. were given. There were good pyrexial reactions.

After 2 weeks had elapsed course of T.A.B. vaccine commenced. First 2 injections ( $\frac{1}{2}$  and 1 cc.) were intramuscularly on alternate days. Then on successive days were given intravenously 0.025 cc., 0.05 cc., 0.1 cc., 0.2 cc., 0.3 cc. with very good pyrexial reaction. On January 29th, 1937, he was much improved in his mental state. Well orientated, no longer depressed, professed to realize he had been mentally ill and that his former delusions were false. Recognized that in reading up psychology he had got out of his depth. Hallucinations were not now present. Worked out of doors. Weekend leave was arranged.

In early February, 1937, he developed swelling of right side of face and contiguous portion of nose with mild conjunctivitis of right eye. On transillumination right antrum found to be black.

In March, 1937, after several weekend leaves with father towards whom patient did not now show any antagonism, relatives reported that patient was lacking in concentration, stayed up late at night, went out by himself and devoted his time to psychological matters.

He developed second attack of right conjunctivitis.

On March 26th, 1936, under general anaesthesia right antrum was drained. Both sphenoids contained pus, being also drained.

On March 30th, 1937, he complained of pain in the right ear. On April 3rd, 1937, an acute otitis media right had developed, the drum being incised on the same day and pus evacuated. Prontosil and colsluanyde were given.

The condition had healed completely on April 16th, 1937, but on April 20th, 1937, the ear drum had burst and pus exuded.

On April 26th there was inflammation of the right mastoid with signs of meningeal irritation. Under general anaesthesia a right cortical mastoid was performed.



The Surgeon reported :—

“ Right cortical mastoid. Cellular mastoid—cells full of granulation tissue and pus in antrum. Middle fossa dura exposed—healthy. Lateral sinus exposed—many infected perisinus cells. Superficial petrosal sinus needled—no clot found. Lateral sinus needled—no blood obtained.

Incision in neck. Ligation of right internal jugular vein. The wound granulated well without complication, secondary suture being performed on May 28th, 1937. A previously persisting right tinnitus now ceased. By the end of June, 1937, he was up and about, had been home on weekend leave. Radiographic examination of jaws showed both lower wisdom teeth unerupted and seriously impacted.

These were removed under general anaesthesia on July 1st, 1937. On July 23rd, 1937, he was well orientated, cheerful, happy and on friendly co-operative terms with his relatives who were now anxious to have him home. Colour and muscle tone considerably improved. Realized he had been mentally ill, was grateful for treatment. Was able to realize his former delusions were unfounded and was not now hallucinated. Stated that an irritation present in right lower jaw for some months had disappeared after removal of wisdom teeth. Father confirmed that patient had lost interest in psychology and was willing to settle down to his own proper work.

His mother reported that since the removal of the impacted wisdom teeth he had no longer, when on leave of absence, been attracted towards a former female patient who had engaged his attention during and subsequent to her residence in mental hospital.

Weight had increased from 9 st. 8½ lbs. on admission to 10 st. 6½ lbs. Had been home on weekend leave, conducting himself to the satisfaction of everyone concerned. Worked out of doors. He was discharged on one month's trial on September 9th, 1937, being finally discharged, recovered, on October 21st, 1937.

#### CASE 17.—*A case of Puerperal Psychosis Recovering after Treatment of Oropharyngeal Sepsis.*

10698. K. B., female, married, aged 27 years, housewife, admitted to mental hospital June 16th, 1937. First attack.

*Family History.*—No insane heredity.

*Personal History.*—She suffered from catarrh and influenza and had a miscarriage in January, 1936. Confinement on March 16th, 1937, and then she developed pyelitis for which she had treatment. However, she became depressed and confused and deluded that she had killed her baby. She had attempted suicide.

*Admission. Physical State.*—She was in poor general health and was very pale. Had a mitral systolic murmur. B.P. 128/94. Urine 1024, acid, cloud albumen and pus present. There was dental sepsis.

*Mental State.*—She was in a state of stupor, deeply confused, restless and would not answer any questions and had to be spoon fed. A week after admission she made a determined attempt to get to the window, saying she had murdered all her family and that she must get away from here.

June 24th, 1937. Was examined by dental surgeon and on July 8th, 1937, four teeth were extracted under ethyl chloride, after which some improvement was noticed. Was not so apprehensive and now stated that all she said about killing her baby was imagination.

A catheter specimen of urine was on examination found to contain B. Coli. and in the deposit there were a number of pus cells and a few epithelial cells.

August 6th, 1937. Examination by ear, nose and throat surgeon found copious mucopus both sides of nasopharynx. Tonsils were large and liquid pus oozed from both. On transillumination the frontal sinuses were clear, right antrum dim and left black. She was recommended for tonsillectomy and general sinus examination and this was performed, under general anaesthesia, on August 20th, 1937, when all sinuses were found to be clear. There was evidence of a large quinsey in left tonsil.

A course of prontosil injections intramuscularly was now given. Patient continued to improve and all sign of delusions, hallucinations disappeared and she was more sociable with fellow patients. On September 11th, 1937, commenced a course of aqueous colsul injections intramuscularly to which she put up very good reactions. Maximum temperature being 103·8°. Pulse and colour were good throughout. Improvement was maintained and after these last injections she



said her head felt lighter, she said her mind was never quite clear before the colsul treatment, although she felt heaps better after tonsillectomy.

Menstruation had not yet returned in spite of Pil Aloes et Ferri.

On October 2nd and 3rd, 1937, she was out on leave of absence for a few hours and again for longer leave. She returned bright, happy and contented. Worked well in convalescent bungalow.

Discharged, recovered, October 21st, 1937.

CASE 18.—*A case of Puerperal Psychosis with Albuminuria both Clearing after Treatment of Oropharyngeal Sepsis.*

10614. M. B., female, married, aged 38 years, housewife, admitted April 8th, 1937.

*Family History.*—No insane heredity. A sister died from tuberculosis at the age of 40 years.

*Personal History.*—Confinement March 21st, 1937. She was well for about 12 days, then she became delirious.

*Admission.*—*Physical State.*—She was in poor general health. Had marked dental sepsis. B.P. 120/85, pulse was regular but volume poor. Urine 1018 acid, cloud of albumen and pus present.

*Mental State.*—She was deeply confused, noisy, restless and resistive to nursing attention. She had marked auditory and visual hallucinations and her conversation was irrelevant.

*Course.*—She had a course of prontosil injections intramuscularly and she was examined by the gynaecologist—uterus was quite well involuted.

On April 16th it was noticed that the right leg and foot were swollen and cyanosed. This subsided on treatment. There was little change in mental condition, she remained restless, noisy, and using obscene language.

On April 22nd and on several other occasions she had septic teeth extracted under local anaesthesia, the final extractions being on June 24th. She was now edentulous. Examination by ear, nose and throat surgeon showed both tonsils were infected oedematous and there was pus on both sides and tonsillectomy was recommended. There was very little change after dental treatment, she was noisy, restless and often violent and her habits were filthy.

July 21st, 1937. Catheter specimen of urine now contained no albumen or pus.

August 6th, 1937. Under general anaesthesia tonsillectomy was performed, both tonsils were small and buried and pus was found in both. She had uneventful convalescence and was very much improved, now quiet, well-behaved and obedient.

August 26th, 1937. Commenced a course of aqueous colsul injections intramuscularly, to which she put up a poor reaction. She stated that on the day of injection she felt as if she had rheumatism all over her body.

Mental improvement was maintained, she was sociable, well-behaved and worked with initiative. She was out on leave on several occasions from which she returned bright and happy. Menstruation now regular. No disturbances.

She was discharged, recovered, on October 21st, 1937.

CASE 19.—*The Treatment of Oronasopharyngeal Sepsis is followed by Recovery from Psychosis with Hallucinations.*

10590. M. C., single, aged 36 years, barmaid, admitted March 8th, 1937.

*Family History.*—No insane heredity.

*Personal History.*—Suffered from headaches and sore throats.

*Admission.* *Physical State.*—She was thin and anaemic, had some filled teeth and tonsils were enlarged.

*Mental State.*—She was mildly excited, futile and suspicious. Was subject to auditory hallucinations, she heard "voices" telling her to "push forward." She was completely disorientated. On March 12th, 1937, was examined by ear, nose and throat surgeon. Tonsils enlarged, fixed and adherent both sides and there were thick strands of mucopus in right nostril. Tonsillectomy and general sinus examination were recommended. On April 8th, 1937, and on six further occasions carious and filled teeth were extracted under ethyl chloride.

She had improved mentally and physically, but still seemed apprehensive.



On June 20th, 1937, she became very depressed and wandered about the ward looking vacant and refused to answer questions. On July 23rd, 1937, under general anaesthesia, tonsillectomy and general sinus examination were performed. Pus was found in left antrum which was drained intranasally. There was a surprising improvement since this operation. Her speech was clear, her eyes not so expressionless and her general tone had improved; said she had no pressure now on the top of her head as formerly. She now had a course of 6 intramuscular injections of prontosil. Her mental improvement was maintained, she helped with ward work, and was bright and cheerful.

She was out on leave on several occasions, returning bright and happy.

Discharged recovered September 9th, 1937.

*CASE 20.—A case of Melancholia with Oropharyngeal Sepsis. Treatment of Dental Sepsis followed by Acute Rheumatism, this Subsided following Anti-Rheumatic Treatment but leaving a Persistent Dupuytren's Contracture. This disappeared and Mental State Recovered after Removal of Septic Tonsils.*

10424. C. F., female, married, aged 44 years, housewife, admitted to mental hospital October 6th, 1936. First attack.

*Family History.*—A brother was an epileptic and died in a mental hospital.

*Personal History.*—She suffered from headaches, insomnia, sore throats and influenza, and in February, 1936, complained of heaviness and pains on the top of her head and she felt very depressed.

*Admission. Physical State.*—She was in fair general health. She had dental and nasopharyngeal sepsis.

*Mental State.*—She was admitted as a voluntary patient and she was depressed, hallucinated, deluded and had suicidal tendencies. These symptoms became more marked and she was certified on October 22nd, 1936. She was deeply depressed, wept for long periods without any apparent reason, and said that she wanted to die as she could never get better.

October 29th, 1936. Under ethyl chloride, five diseased teeth were extracted and on 3 further occasions extractions were made. She improved considerably after dental treatment and was now bright and cheerful. Her appetite was good and she slept well. On December 4th, 1936, she was examined by the ear, nose and throat surgeon who found that both tonsils were grossly infected and both antra were dim. She was recommended for tonsillectomy and antral washout.

January 21st, 1937, developed a cold and cough with slight rise in temperature. This subsided and she was bright and cheerful and willing to help in the ward.

February 13th, 1937, complained of pain in left hip joint and temperature was  $100.8^{\circ}$ . P, 108. R, 22. During the next week there was little change in her condition, complained of pain in limbs and back and temperature was raised at night. Her knees and ankle joints and hands were swollen. These symptoms subsided gradually by the end of March, but her left hand was still swollen and here she had a Dupuytren's contraction in spite of anti-rheumatic treatment. On May 22nd, 1937, feet and ankles were swollen and she was confined to bed once more, the condition of the left hand was unchanged. June 25th, 1937, under general anaesthesia a general sinus examination was performed when all sinuses were found to be clear.

July 9th, 1937, under general anaesthesia tonsillectomy was performed, pus was present in both tonsils.

She was now much better mentally and physically. Fingers of left hand much less contracted, massage was given during the day and the hand was put on a splint at night.

Her improvement was maintained and she was out on short leave of absence on several occasions in September and she said that since tonsillectomy she had been relieved of a pressure on top of her head. Her left hand had now become practically normal. She gained 1 stone in weight and menstruation was regular from April, 1937. She was a good worker in the ward.

She was discharged recovered on September 9th, 1937.



CASE 21.—*A case of Advanced Psychosis, whose Conduct suggested an Assault on his Eyeball, found to have Sphenoidal Sinus Disease. Following its Treatment the Oculophobic Conduct ceased and some Amelioration became apparent in the Mental State.*

M. 848. F. C. H., male, single, aged 30 on second admission to mental hospital on October 24th, 1929.

*History.*—He had been previously treated in mental hospital from July 29th, 1926 to July 14th, 1928, being discharged on friends' application to their care.

*Medical Certificates.*—The present medical certificate referred to his stuporose state and destructive tendencies.

*On Admission.*—He was stuporose, apathetic, depressed and hallucinated in auditory and visual senses. He was negativistic and became impulsive and hostile under provocation. His habits were faulty, he was destructive, refused to speak and exhibited a rapacious appetite. Physically his condition was poor. There was advanced pyorrhoea and auricular fibrillation. Bilateral ptosis was noted.

By September 24th, 1931, there had been a number of dental extractions and his mouth was pronounced healthy. His Wassermann reaction was found to be negative and his red blood cell count normal. His general physical and mental state were unchanged.

A year later he was described as demented, slovenly, antisocial and unable to occupy himself usefully.

On November 27th, 1932, he received a blow from another patient causing discolouration of left eye. As far as can be ascertained, this cleared up apparently uneventfully. (This is mentioned in view of subsequent history).

August 10th, 1935, ophthalmic review—"there appears to have been some keratitis of left eye, now healed."

May 2nd, 1936, he again attended the ophthalmic clinic, apparently on account of recent lesion of left eye, caused by poking his finger into it.

May 23rd, 1936. The eye was declared to be better after local treatment.

The interference by the patient with his left eye did not end here, but persisted. He would insert his left index finger under the left eyelid, or put it in contact with his left eyeball, and by constantly irritating it thus, set up a traumatic conjunctivitis. He would also repeatedly and vigorously rub this eye with the palm of his left hand or evert the left upper or left lower lid. Throughout, whenever there was manual manipulation of his eye, it was always with the left hand and involved the left eye only. If any attempt were made to restrain him from interfering with his eye, he would roll both eyes upwards, showing only the whites. The performance resembled an irregular succession of momentary oculo-gyric crises. He was able to produce a peculiar clicking sound simultaneously from both eyes at the point of their maximum upward rotation. The sound produced resembled the "clicking" of a joint and was quite audible a few yards away. The interference with his left eye, together with the frequent elevation of both eyes, would continue for days or weeks, with variable remissions. A course of prontosil was given in December, 1937, with no appreciable benefit.

At the beginning of 1938, in addition to the previously described actions, he began to strike his left eye with his fist. His eye now became inflamed and erythematous, while the orbital tissues were bruised and congested. As his efforts now were calculated to do serious injury to his sight, he was put to bed and prevented as far as possible from any further action of this nature. During the whole of the time he refused to speak beyond an occasional monosyllable and no information or account of his actions could be obtained from the patient. Mentally he was much as on admission.

Conceiving of some focus of irritation, he was reviewed for ear, nose and throat treatment on February 1st, 1938, with the following findings:—

Ears.—Both normal except retraction of left drum.

Anterior nasal spaces.—Fine mucous streak lying in right nostril, left clear.

Nasal Sinuses on transillumination.—Antra dark, frontals clear.

A general sinus examination was recommended.

By this time the tissues around his eye had become thickened and keratotic.



February 15th, 1938. General nasal sinus examination by Watson-Williams' technique preceded by 2 col. calcium injections intramuscularly of 4 ccs. each on 14th and 15th February.

Sphenoid	...	Right, 3½ in. thick pus.	
		Left, 3½ in. clear.	Wide open ostium.
Ethmoid	...	Right	} All clear.
		Left	
Antrum	...	Right	
		Left	

Right intranasal sphenoid drainage performed and argyrol 10 per cent. instilled into all sinuses.

This was followed by the daily administration of one colsulanyde powder, commencing on February 25th, 1938. This is still being prescribed.

There was no change for a few days, the patient continuing to rub his eye, etc. Thereafter, however, he gradually reduced the amount of interference and then, about one week later, suddenly stopped it altogether. Up to the present date, March 14th, 1938, there has not been any further ocular interference, except on two occasions during examination, when verbal reference was made to his eye, he elevated both several times. These movements ceased when the patient's attention was distracted, and were not observed again.

There is now a complete absence of the previously more or less persistent conjunctivitis, and the bruising of the tissues surrounding the eye has dispersed. The keratitis of the peri-orbital tissues is resolving. Bilateral ptosis is still present, more marked on the left side.

Furthermore, there is a definite improvement of the mental state in the form of an increased mental acuity, added initiative and a less hostile disposition. The patient is more inclined to talk and appears to be in closer contact with reality. He replies to some questions sensibly, but shows early fatigue. Other questions, including any appertaining to his subjective experiences, he does not answer. Some questions are answered irrelevantly.

He is still deluded and untidy. No evidence of hallucinations was elicited, but conclusions about these as yet must be indefinite. In the general physical state there is perhaps a slight improvement.

Patient has never complained of headache or other subjective sensations.

*CASE 22.—A case of Psychosis with Oronasopharyngeal Sepsis with Aural and Mastoid Complication Recovering after Treatment of these Diseased Conditions.*

M. 1611. P. C., single, salesman, aged 27 on first admission to mental hospital on December 6th, 1937.

*History.*—He was admitted with a history of persecutory ideas. He had imagined that people were against him and slandered him and that he was prevented from getting a job. He thought the police were unfriendly. He was reported to have been excited and to have attacked his mother. The condition had been recognized as having a month's duration.

*On Admission.*—He was mildly depressed, confused to a slight extent, apathetic, indifferent and suspicious when questioned. He gave utterance to persecutory ideas and declared that there was some scheme afoot to prevent his getting a job.

Physically he was in fair health, but there was present oral and dental sepsis and a systolic murmur at the cardiac base. Blood pressure, 160/100 mm. Hg.

December 13th, 1937. Ear, nose and throat examination—

Ears—Normal. A.N.S.—Mucopus in floor of right nostril. Left nostril clear. P.N.S.—Pus coming down right side. Enlarged posterior ends of both inferior turbinates. Tonsils—Large and irregular. Injected on surface. Liquid pus on both sides. Nasal sinuses on transillumination—Frontals—Clear. Antra—Black.

December 15th, 1937. Wassermann reaction negative.

December 31st, 1937. Now somewhat brighter and more alert mentally. Still suspicious. Employed with ward work.

January 3rd, 1938. Dental—two extractions.

January 8th, 1938. X-ray of jaws. Upper jaw-root stump of first left molar with apical abscess and densely indurated margins. Right canine malplaced (unerupted). Apex of left central incisor appears slightly rarefied. Lower jaw negative.



On January 11th, 1938, ear, nose and throat operation under general anaesthesia. General nasal sinus examination—Watson-Williams' technique—

Sphenoid ...	Right	} 3½ in. both clear.
	Left	
Ethmoid ...	Right	} Both clear.
	Left	
Antrum ...	Right	} Flakes of pus in both.
	Left	

Argyrol 10 per cent. instilled into all sinuses. Bilateral intranasal antrostomy and tonsillectomy performed. Both tonsils contained pus and were adherent.

On January 17th, 1938. Acute otitis media and mastoiditis were diagnosed and treatment prescribed.

January 20th, 1938. Left cortical mastoid performed. Pus was found throughout cells. Extensive cellular mastoid present. Pus in antrum and at tip. Sinus was exposed over a small area and was intact. Bisform packing and a drainage tube were introduced. One dose of prontosil 5 ccs. intramuscularly and two prontosil tablets t.i.d. were prescribed.

February 9th, 1938. Improvement shown in mental condition. No longer was patient evasive and suspicious, but direct and frank in replies and attitude. There seemed nevertheless to be a persecutory undercurrent. Confusion had gone completely.

February 28th, 1938. Blood pressure 150/100 mm. Hg.

On March 1st, 1938, he gave the following information:—

He had been depressed for six months, had had "colds" several times during the winter 1936-37 and had experienced cacogeusia for three months before admission. There had not been any cacosmia, no headache, head noises, giddiness or visual disturbances. The cacogeusia had left him by now. He remembered feeling confused for some weeks before admission but this had disappeared together with the depression. He had previously been a heavy smoker. He declared that he now felt more alert and active and regarded his previous persecutory ideas as being erroneous. He had gained nine pounds in weight. B.P. 145/100. mm. Hg.

The mastoid was healing well. He was able to do light work and to go for weekend leave of absence from hospital.

It was noticeable that the mental improvement followed the ear, nose and throat operative procedures.

He was discharged, recovered, mentally, on March 10th, 1938, arrangements being made to continue aural treatment.

*CASE 23.—A case of Melancholia with Severe Fear and Hallucinations associated with Nasopharyngeal Sepsis and Recovering Mentally after its Treatment.*

M. 1534. A. F., male, aged 45, married, car park attendant.

Admitted February 9th, 1937. (Certified patient from June 5th, 1928 to May 21st, 1931 and voluntary patient from September 22nd, 1933 to April 28th, 1934.)

Duration of existing attack—1 week.

The certificate stated that he was profoundly melancholic and dejected, that he had made references to suicide and had been subject to uncontrollable outbursts of weeping.

This condition obtained on admission. He was in a state of abnormal depression and looked thoroughly miserable. Frequently he would start, stare wildly about him and then cry out in a state of terror "they will kill me," "they are going to get me." This distressing experience would soon reduce him to a pitiable state of whimpering and fearful apprehension of some impending disaster. It might be thought that his expressed fears of some imminent personal calamity were provoked by auditory hallucinations.

Physically he was in fair condition. He was, however, toxic looking, cyanosed and decidedly unhealthy in appearance. There was an old amputation of left arm.

A fortnight later, an ear, nose and throat investigation revealed the following:—

*Posterior Nasal Spaces.*—Some mucopus in both spheno-ethmoidal recesses.

*Anterior Nasal Spaces.*—Nasal polypi both sides.

*Tonsils.*—Both very adherent.

*To transillumination* the frontals and antra were both black.

*Ears.*—Both drums retracted and fixed.



He continued in his depressed state and complained bitterly that the "voices" threatened him with hanging and death. He was of course quite impervious to reason and reassurance.

On March 23rd, 1937 he had a general sinus exploration, when pus was found in both antra. An intra-nasal antrostomy was performed on both sides and bilateral ethmoidal polypi were removed. He was listed for a further ear, nose and throat review later.

Two weeks later he was brighter and appeared less hallucinated. He seemed thereafter less distressed and had fewer tearful outbursts with less emotional anguish. The depression and morbid ideas, however, persisted.

On May 11th, 1937, tonsillectomy was performed, both tonsils being very adherent.

By July, 1937, a steady improvement was reported. There was now a glimmer of insight and he was able to realize that his attacks of fear had no environmental significance. He was less agitated, less apprehensive and exhibited greater emotional stability. Following on this there was a relapse with a recrudescence of frightening auditory hallucinations and consequent terror. About this time he was sleeping inadequately and, when questioned about this, stated that headaches kept him awake. It was also observed that he had attacks of right blepharospasm. His headaches appeared to be supra-orbital, but detailed information could not be evoked. He was booked for another ear, nose and throat review which took place on October 5th, 1937, with the following findings.

*Anterior Nasal Spaces.*—Thick streak of muco-pus at right nostril. Ethmoidal polypi both sides.

*Posterior Nasal Spaces.*—Clear.

*Throat*—Completed tonsillectomy.

*Nasal Sinuses.*—All dark.

An X-ray film taken, showed "chronic thickening and complete obscurity of both antra. Other sinuses clear and normal." The frontals, however, were rather obscured by film density.

He then had a course of prontosil 2,5,5,5,5, cc's intramuscularly, and on October 19th, 1937, a general sinus examination was undertaken.

Both sphenoids, both ethmoids and both antra were found to contain pus. These were irrigated thoroughly. There was copious haemorrhage from the sphenoids which hindered adequate drainage of these. Polypi were removed. Directly after this there was relief from the headaches and a general amelioration in his mental upset. The blepharospasm disappeared. He was brighter, more cheerful and soon employed with light ward work.

On November 19th, 1937, however, he developed a pharyngeal abscess. This cleared up after being opened and drained. A short course of prontosil was also instituted.

By December the hallucinations had ceased together with the fear with which they were associated. He was now composed and mentally more resolved. He felt confident in himself and reported no further headaches. He stated that he slept and felt better and that his appetite had improved. The blepharospasm had stopped completely.

He was now able to give a clear account of his illness and commented on the severity of his headaches. They were mainly supra-orbital and on the right side. Sometimes they radiated over a larger frontal area. They persisted for times varying from a few minutes to hours, were continuous and sharp. They sometimes occurred several times in 24 hours while at other times he was free for several days. The headaches were relieved after both sinus operations, returning after a few months in the first case and disappearing completely in the case of the second. He recalled a direct relationship between the headaches and the auditory hallucinations with their associated bouts of terrified behaviour. The headaches, also, he declared, kept him awake and fearful at night. Worked in ward. Weekend leave of absence.

He was discharged on January 13th, 1938, mentally well and physically much improved. The cyanosis which had been conspicuous on admission had now disappeared.



CASE 24.—*A case where Post-Influenzal Depression and Allied Symptoms were Temporarily Relieved by Treatment of Antral Disease, but Symptoms Recur and Exacerbate, necessitating Admission to Mental Hospital where Radical Treatment of Remaining Sepsis was followed by Substantial Recovery.*

M. 1558. E. S., male, married, aged 47, gas fitter. First admission to mental hospital June 8th, 1937.

*History.*—Was quite well until about September, 1936. Then was confined to bed with an attack of influenza for two to three weeks at home.

Following this came a period of depression, impaired ability to concentrate, headaches, sometimes throbbing and at other times a dull aching, insomnia and a general malaise. On account of his condition he went to hospital and remained there for 5 weeks. On discharge therefrom he was still depressed, but recommenced work.

He was able to continue with his work for only 5 weeks before he found it necessary to enter another hospital where he remained for 2 weeks. There was little improvement.

In April, 1937, he complained to his doctor of stuffiness in the head and a feeling that his "nose seemed blocked up," there was cacosmia. His doctor recommended him to a General Hospital where he had two nasal sinus washouts. The patient states that "a lot of pus and blood came out."

There was a definite amelioration of his symptoms after this—he felt less depressed and more alert mentally. He was able to return to his work.

Five weeks later however, the depression and feelings of physical and mental inadequacy returned and it was again necessary for him to give up his occupation.

*On Admission.*—On June 8th, 1937, he was admitted to mental hospital as he had developed ideas of persecution and of reference, irritability and a suspicious mood. He had also proclaimed his wife's infidelity, stated that men in his house were after him and that people were disparaging him.

On June 12th, 1937, he said that he felt he could not cope with life and wished he could get rid of his "haziness and depression."

He was mildly confused, markedly depressed, unresolved mentally and completely lacking in self-confidence. The persecutory ideas were not evident, although he referred to recent ideas which he now regarded as imaginary. He declared that in the last year he had lost 2 st. in weight. On examination he was found to be in fair condition but to have large septic tonsils. Three weeks after admission he seemed a little brighter and less depressed.

Four weeks after admission tonsillectomy was performed, when removal of large slightly adherent infected tonsils was performed. A week later he maintained that he was "getting along famously" and felt much better. He was cheerful, bright and taking a keen interest in his surroundings. He was mentally composed, confident in his ability to resume his employment, sleeping well and no longer troubled with headaches. He was willing, however, to remain for completion of treatment.

On August 24th, 1937, a general sinus examination was performed and all sinuses found to be clear.

The improvement was maintained and he was working eagerly and efficiently on the farm. Leave of absence from hospital. He was discharged October 21st, 1937.

CASE 25.—*A case of Adolescent Psychosis with Impacted Unerupted Wisdom Teeth and Oronasopharyngeal Sepsis. Substantial Recovery and Enhancement of Physical Capacity followed Radical Treatment of these Conditions.*

M. 1560. A. C., male, aged 16, single, driller. First admission to mental hospital on June 9th, 1937.

*History before Admission.*—About a week before admission he had taken possession of a motor-cycle and was arrested. When questioned he stated that he did not attempt to steal it, but was trying out his A. B. C. D. E. System for testing cars.

He was obviously mentally unwell at the time, although this incident appears to be the first indication of this. He was taken to hospital and 1 week later removed to mental hospital.

The medical statements declare that he was confused, resistive and wrote obscene sentences.



*On Admission.*—He was confused, ideationally retarded, restless and afflicted with auditory hallucinations. He was mentally inaccessible. For the first 2 days he refused food.

Physically he was undernourished and looked toxic and unhealthy.

Oro-naso-pharyngeal sepsis was present in the form of carious teeth, enlarged purulent tonsils and intra-nasal folliculitis. All wisdoms were unerupted.

In a week's time he was still unable to give a coherent account of himself and he was foolish in conduct and constantly grimacing. He was by now vividly hallucinated. He gradually became more self-absorbed but less confused until on July 6th, 1937, he was properly orientated. Apart from this diminution of confusion, previous symptoms persisted unabated. On this day he had 4 dental extractions.

His condition was much the same until the beginning of August, when he became very restless. He was put to bed and was heard to proclaim that his brother was calling him and that men's voices told him to get out of bed, this he attempted to do.

He was in this distressed state until August 16th, 1937, when the 4 unerupted impacted last molars were removed under a general anaesthetic. This was after consideration of an X-ray film of the jaws.

After this he became more composed and settled, and a fortnight later there was evident mental improvement. His conversation had become connected and coherent and his grimacing had lessened. Although overt manifestations of hallucinations were inconspicuous, it is probable that there was an hallucinatory undercurrent. The predominant features at this stage were an emotional apathy and a general mental dullness and sluggishness.

During examination he showed early ideational fatigue. His sleep and appetite had improved. On September 7th, 1937, tonsillectomy was performed and a large intra-tonsillar abscess was found on the right side. Both tonsils were heavily infected.

From September 18th to September 26th, he had a course of prontosil, five doses—2½, 5, 5, 5, 5, cc.'s intramuscularly.

By October 27th there was a marked change in his condition mentally and physically, the improvement was such that he was actively employed in the gardens and was taking an interest in his work. He was alert and to questions and environmental stimuli his reactions were brisk and he showed adequate comprehension. In place of what seemed previously a sullen and slothful disposition was a pleasant and willing personality.

There was now no evidence of disordered perception. Two weeks later a careful assessment of his mental state revealed complete mental clarity and insight. He remembered details of his mental illness and was able to give a clear account of the history of his mental upset. He remembered "being troubled with voices and a buzzing noise in both ears." He also recollected having been effected with frontal headaches, cacosmia and cacogeusia. These had not occurred for about 2 months.

Worked in ward and on farm and had weekend leave of absence. He had gained 2 st. in weight since admission.

Discharged recovered on December 16th, 1937.

#### CASE 26.—*A case of Severe Confusion Recovering after Treatment of Gross Oropharyngeal Sepsis.*

M. 1561. J. M., male, married, aged 27, turner. First admission to mental hospital on June 11th, 1937.

History of three days—delusions, restlessness and irrational conduct.

On admission he was grossly confused and quite unable to give a coherent account of himself. There was marked restlessness with gesticulations suggesting visual hallucinations. Imperception was pronounced and there was insomnia. Later auditory hallucinations became manifest (about a week after admission). His behaviour was disorderly.

Physically he was undernourished and there was pus in his tonsils. The main feature, however, was the oral sepsis resultant from a set of filthy teeth and advanced pyorrhoea of both jaws.

A complete physical and mental examination were impossible on admission owing to the extreme restlessness and chaotic mental state.

Wassermann reaction was negative.

On July 6th, 7 extractions under ethyl chloride.

On July 19th, 6 extractions under ethyl chloride.



On August 2nd, 4 extractions under ethyl chloride.

On August 30th, 7 extractions under ethyl chloride.

On September 7th, tonsillectomy, preceded by course of colloidal sulphur.

On September 27th, 7 extractions.

During this time improvement continued consistently, dating from initial extractions.

On September 25th, he was mentally composed and sensible in conduct and conversation. He volunteered the statement that he felt much better than he had done for several years and referred to the relief of oral discomfort since tonsillectomy and dental extractions. There was complete insight but only a vague recollection of events during his toxic state. Confusion had completely dispersed. He was optimistic and pleased with life. His sleep and his appetite had improved considerably. Worked well on farm. Weekend leave.

On November 18th, 1937, he was discharged quite recovered mentally and in a far better physical state than on admission. He had gained  $1\frac{1}{2}$  stone in weight.

*CASE 27.—Refusal of Treatment of Gross Dental Sepsis leads to a Delusional Psychosis. Its Treatment after Certification is followed by Mental Recovery and Amelioration of Physical Symptoms.*

M. 1581. F. A., married, aged 52, labourer. First admission to mental hospital August 30th, 1937.

Medical statements indicted him with delusions of his wife's marital infidelity and general suspiciousness.

On admission he was evasive, suspicious and deluded. Believed that various tradespeople were associating with his wife. His conversation was irrelevant at times.

Physically his condition was fair but his teeth were carious and septic. Pyorrhoea present. Ears, nose and throat clear.

He had a history of toothaches for 5 years and stated that his gums were inclined to bleed. Gastritis had been present for 1 month. He had vomited many times and felt "rotten." He actually had to leave his work because he was frequently vomiting and on account of the incapacity resulting from abdominal pain.

His doctor had urged him several times to get his teeth removed but patient had put the matter off. His doctor told the patient when he was certified that at last he would get his teeth attended to.

He had been eating and sleeping badly for about 2 months and been losing weight. His work had suffered recently through his lack of initiative and endurance.

He had 14 teeth extracted in the first month after admission and his mental state thereafter consistently improved.

In 2 months he was working on the farm, had lost the delusions concerning his wife and could converse coherently and frankly. He stated that he remembered that in July, i.e. just before admission, he imagined he had heard men's voices at night.

Since the dental extractions the abdominal discomfort and vomiting had gone completely and there were no unpleasant tastes in the mouth. His tongue, he said, was no longer coated. He declared himself delighted with the result of his treatment and maintained that he felt better now than for years. The patient himself thought that the dental treatment and the enemata he had received caused his recovery "They did me a world of good." He had increased 4 lbs. in weight since admission. Worked well in the ward and grounds. Weekend leave of absence.

Discharged recovered December 16th, 1937.

*CASE 28.—Psychosis in which Alcoholic Heredity and Alcoholism were Reported. Recovered after Treatment of Empyema of Antrum of Highmore.*

10704. L. C., male, painter and paperhanger, married, aged 46 on first admission to mental hospital on June 28th, 1937.

*History. Family.*—Father died of drink.

*Personal.*—Left school in Standard 7 at 14 and commenced his present occupation. Usually cheerful, sociable and industrious. Married 24 years, 6 children, youngest aged 6. When a child had measles, has in relation to his trade suffered with lead-poisoning. In 1932 he had an operation for gastric ulcer.



In August, 1936, early mental symptoms were shown, he worried about work and financial circumstances, was irritable and on one occasion assumed a threatening attitude to his wife but did nothing violent. He had had about this time a bicycle accident having to have several stitches in his chin, and also an attack of vomiting and violent pain in stomach and chest. This was followed by "debility" for which he was under treatment in a hospital where he improved and discharged himself, after five weeks' residence, against medical advice.

He continued depressed and unable to work until April, and then only for three weeks, when he had "stomach trouble" for three weeks and was again off work. An attempt to work was again followed by incapacity in which he was depressed, sleepless, unable to take food and losing weight but was stated to have been drinking heavily.

On June 22nd, he went into hospital again and was found to be in a deeply melancholic state. He was convinced that people were after him to do him bodily harm and that his workmates sneered at him. Conversation was impossible to obtain and such statements that could be elicited showed that his intellectual processes were wholly dominated by fear, thus "You've got me now"—indicated his view that it was intended to kill him.

"I've no right to it, I've no panel money to pay for it" indicated his reason for refusing his food. "Because my clothes were lousy, do me in. I know I have got to die."

He was admitted to mental hospital.

*On Admission to Mental Hospital. Physical State.*—Temperature varied from 98.6° to 97.6° F. Height 5 ft. 8 in. Weight 8 st. 10½ lbs. Acneiform spots on back. Heart, lungs and abdominal viscera, no abnormality except that the liver was palpable two fingers' breadth below the costal margin. Upper abdominal midline operation scar. Pupils were normal. Blood: Wassermann negative. Widal, B. Typhosus 90, B. Para. A. 180, B. Para. B. 90, B. Aertrycke 25, B. Dysentery Y. 25. Cerebrospinal fluid: Wassermann negative; colloidal gold negative; cells, no increase. Faeces, bacteriological, no abnormal organism detected.

*Mental State.*—Dull, apathetic, fearful, extremely depressed and deluded as already described. Said he was too unworthy to eat, refused food. No evidence of hallucinations. Marked latent period. Speech really too much of an effort, replies slow, laboured and lethargic.

*Progress and Treatment.*—Large mass of wax removed from left ear. Edentulous apart from one septic dental element—this was removed. At two sessions of colon irrigation large patches of mucopus were brought away. By the middle of August he was still very depressed and apathetic although taking food and doing a little work in the ward but in a very dejected way. He was however now able to co-operate in examination and on August 13th, ear, nose and throat examination found:—nasal spaces: anterior, mucosa in relation to right inferior turbinate, oedematous. Posterior, enlarged end of right inferior turbinate, no pus seen. Tonsils, not adherent, liquid pus right, both septic. Ears, normal. Nasal sinuses on transillumination: antra, black; frontals, dim.

The condition warranted the removal of septic tonsils and investigation of nasal sinuses, and as by the end of September there was no remarkable change in his mental state, on October 1st, under general anaesthesia the septic tonsils were removed by dissection and bilateral antral investigation was made by the Watson-Williams' suction exploration technique, which demonstrated empyema of the right antrum, the left was devoid of exudate. The right antrum was drained intranasally.

In the after treatment of this operation he was resistive to antral washouts but a colon irrigation at the end of October brought away only small flakes of mucopus.

At the ophthalmological examination, November 6th, he was co-operative and it was found that there were no ocular complications.

From November 7th to 15th, 1937, he had a course of five intramuscular injections of Crooke's aqueous colsul, the first ½ cc., then rising by ½ cc. to 2½ cc. on the fifth injection. Pyrexias of 100° F. and 103.4° F. obtained, the pyrexial reaction generally lasting over 12 hours. Definite physical and mental improvement now began to appear. His weight during the phase of active treatment, during October and November, had fallen from 9 st. at the end of August to 8 st. at the end of November, but at the end of December it was 8 st. 12 lbs., at the end of January 9 st. 7 lbs., and at the end of February 10 st. 6½ lbs.

It was during January and February that definite progress was made, he was able to take up work out of doors in March and satisfactorily go on week-end leave.



At a review on April 2nd he was normally orientated, had lost his fearful ideas, recognized he had been mentally ill and that the steps taken to treat him were correct. He felt much better now after working out of doors, able to take up his usual work, he expressed satisfaction with the nose and throat operation, stating that his "head and throat were a lot clearer," and insisted that he could not have drunk much as he was out of work and had not got the money to pay for drink, but he now intended to avoid alcoholics. He was now sure that life was worth living. Formerly he said he had severe occipital headaches, these, since operation had ceased. Objectively in facial colour and tone as well as in general muscular strength, enabling erect carriage, there was an enhancement of physical fitness and its response to environmental stimuli in emotional change showed a much improved mental state.

He was discharged weighing 11 st. 1 lb. to the care of his wife on April 7th, 1938.

*CASE 29.—A case of Severe Confusion liable to be Attributable to the Menopause but Recovery ensued following Treatment of Oropharyngeal Sepsis.*

10722. A. P., a married housewife, aged 47 on admission to mental hospital on April 9th, 1937.

*History.*—No relevant family history elicited. On leaving school she became a waitress. Normally she was cheerful and sociable, steady and industrious. Married in 1915. Two children, youngest aged 15 years. Since a young woman she has been troubled very much with neuritis in her head. Had upper teeth out fourteen years ago for pyorrhoea. About twelve months before admission she thought she was pregnant. Sleeplessness, headaches and loss of weight preceded the appearance of more definite mental symptoms affecting alterations of conduct and disposition. During the last six weeks she became very aggressive and more so during the last fortnight, wanting to strangle people she previously had held in high esteem. She was troubled with imaginary voices, saw visions and was excited about spies, clues, detectives and codes. Her husband later discovered that she had a "mania for charity."

Medically examined at her home she was found to be "wild and incoherent in speech, requested the doctor several times to go to the help of a well known pathologist whose work, she asserted, he was to take and whom he would excel. She insisted that a secret code existed between the doctor and herself and that he was trying to shield her husband and other men she would not name at a well known local firm, where she asserted there existed several "knocking shops."

During the interview she was continually on the walk, peering through the window for spies, of which she said there were many hanging about.

Her husband said she had involved him in large domestic accounts with the local tradespeople, had written to his employer a scurrilous letter about him and tried to send a telegram of a similar nature.

In contradistinction to her previous conduct she was suspicious and obscene. She was sure she was being followed by old neighbours from another locality who were prying into her conduct. Admitted into a mental hospital she was classified as a case of delusional insanity. She was noisy, employable at ward work and it was considered necessary to keep her under continuous observation. She had pyorrhoea alveolaris in the lower jaw and there was a small area of chronic ulceration on the right ankle. She was deluded, hallucinated and rambling in speech and identified movements of others as mystic signs which had a meaning for her alone. On occasions she was irresponsibly noisy.

She was transferred to the Birmingham mental hospital on July 12th, 1937, where examination found:—

*Physical State.*—Temperature 97.4°F., pulse 72, respirations 18, height 5 ft. 5½ ins. Weight 8st. 12lb. Lymph glands were not anywhere enlarged. Cardiac limits and sounds appeared normal: B.P. 172/102 mm Hg. Veins normal but had two healing varicose ulcers on inner side of right ankle. Lungs and breasts normal. Tongue clean, moist. Gums: upper, denture, healthy; lower, gross pyorrhoea. No sensory disturbances elicited except cacogeusia, occasionally. No neurological signs. Sphincters under control.

Gynaecologically: vaginal walls lax, slight rectocele, evidence of parturition, not infected, moderate degree of retrodisplacement. Urine 1020. acid. faint cloud albumen.

*Blood:*

Wassermann reaction, negative.



Widal test : positive to B. Dys. X. 125, and B. Dys. Y.35. Oxford units, remainder negative.

*Blood count :*

Erythrocytes ...	4,100,000
Leucocytes ...	7,500
Haemoglobin ...	75 per cent.
Colour index ...	0.91

*Differential count :*

Polymorphonuclears ...	58 per cent.
Lymphocytes ...	37 per cent.
Large mononuclears ...	4 per cent.
Eosinophils ...	1 per cent.
Basophils ...	0 per cent.

Film examination of blood. Red cells normal in size, no nucleated reds seen, a few white cells, normally present only in bone marrow, were seen.

*Mental State.*—Imperfectly orientated in time and disorientated for place, deluded and aurally hallucinated. Depressed, persecuted and suspicious. Rambling speech tends to incoherency with flights of ideas. Evasive. Emotional. Complete lack of insight.

*Progress and Treatment.*—The subsequent course of the case can be divided into three stages. The first until the end of August, the second until the end of December and the third until discharge in March, 1938.

During the first stage from admission on July 12th until the end of August, 1937, there was no improvement in the mental state, she continued alternately dull and apathetic or irresponsibly noisy, restless, quarrelsome, sometimes abusive, hostile and aggressive to staff, variably confused, chattering to herself perpetually, interfering, hoarding rubbish and eating waste from rubbish bin. Gynaecologically no treatment was required.

On August 5th and 19th twelve dental extractions were made rendering her apparently edentulous. Mouth healed satisfactorily. On August 28th an examination by the rhinological surgeon found :—

Posterior nasal spaces, not seen.

Anterior nasal spaces, oedema right inferior turbinate otherwise clear.

Ears, both drums normal.

Nasal sinuses, on transillumination antra and frontals all clear.

Tonsils, both purulent.

The second stage, that of mutation of mental state, accompanied by exacerbation of pharyngeal sepsis and lymphadenitis, is placed from the beginning of September to the end of December.

On September 2nd it was noted that there was a mental improvement, she had a more cheerful appearance and was willing to assist staff.

She was sufficiently well on the 4th to co-operate in an ophthalmological examination by the ophthalmologist who prescribed a change of glasses.

During the night of the 10th to 11th she complained of sore and painful throat. Temperature rose to 99.6° F., pulse 88.

Locally there was an exacerbation of the faucial and pharyngeal septic condition. Swabs on bacteriological examination found staphylococci aureus and albus, streptococci anginosus, salivarius, cuniculi and saprophyticus.

Intramuscular injections of prontosil 2 cc., 3 cc., were given on the 11th but temperature rose to 100° F.

On September 12th, 13th, 14th, 15th, 5 cc. prontosil were injected each day and on only one occasion, 13th, did pyrexia occur, temperature rising to 99° F. and then falling immediately. Thereafter, on the ensuing four days temperature was 97° F. and pulse normal. By September 24th she was up and working well, her physical and mental condition had improved. She was quietly conducted and well behaved.

On October 2nd menstruation occurred, for 1 day only, having been in abeyance since admission.

There was no mental exacerbation reaction but a physical exacerbation appeared to be connected.

On October 3rd she complained of not feeling well, she was feverish, temperature 101° F., rose to 102° F. and fell to 100° F. then rising to 102° F. again during the night and then falling to 100° F., then rising to 101.4° F. and falling during the night and morning of the 5th to 98° F. Associated there was an acute lymphadenitis of the glands under and adjacent to the right sternomastoid muscle. On the 5th an area of skin on the left leg below the knee became inflamed.

Both these conditions received local treatment but she now did not experience sore throat.



During the ensuing weeks until October 27th temperature oscillated, variably regularly, between  $97.4^{\circ}$  F. to  $100.2^{\circ}$  F. On 27th temperature rose and on 28th reached  $101^{\circ}$  F., falling on next day to  $97^{\circ}$  F. and thereafter ranging between that value and  $98^{\circ}$  F.

A blood count taken on October 30th found : *Differential count :*

Erythrocytes ...	3,680,000	Polymorphonuclears ...	66 per cent.
Leucocytes ...	8,300	Lymphocytes ...	19 per cent.
Haemoglobin ...	80 per cent.	Large mononuclears ...	12 per cent.
Colour index ...	1.08	Eosinophiles ...	3 per cent.
		Basophiles ...	0 per cent.

By this time although not completely resolved the lymphadenitis was greatly improved, there was less pain and swelling, temperature was normal and she was taking food well and this improvement progressed during November enabling her, towards the middle of the month, to be up and about.

On November 20th it is observed that her mental condition was greatly improved. She was quiet, well behaved, working well in ward displaying a very happy disposition. She was eating and sleeping well but the neck was still swollen slightly.

Since admission seven sessions of continuous colon irrigation had brought away variable, sometimes large, amounts of mucopus. Radiography of the jaws now found a buried root of the right lower canine, not one of the extractions already described. Urine examination was now : 1018 : acid, nil abnormal.

A blood count on December 2nd found : *Differential count :*

Erythrocytes ...	3,900,000	Polymorphonuclears ...	61 per cent.
Leucocytes ...	6,300	Lymphocytes ...	25 per cent.
Haemoglobin ...	79 per cent.	Large mononuclears ...	10 per cent.
Colour index ...	1.01	Eosinophiles ...	4 per cent.
		Basophiles ...	0 per cent.

A cardiovascular review on December 7th found—

Blood pressure 136/92 mm. Hg. The cardiac limits and sounds were still normal.

Associated there was a mental improvement with right cervical glandular recession, almost but not to complete subsidence. She was now able to discuss her case with insight and to recognize the interaction of her physical and mental state. Some of the information now given is included in the later review of her case. It was pointed out that of the septic state on admission, although better to some extent, there still remained diseased tonsils, doubtless responsible for the cervical lymphadenitis, and the buried root, and that to enhance her general health and possibly prevent recurrence of a mental relapse it would be desirable to remove these. She appreciated that she could not wear a denture over the buried root and agreed to its removal.

This was attempted on December 23rd but localization was not sufficiently accurate and the essay failed.

On December 31st, 1937, at an ear, nose and throat review the rhinological surgeon found that the lymphadenitis had disappeared and that no further local treatment was required but that the indications for the former recommendation of tonsillectomy still existed.

This stage of mental and physical improvement marks the commencement of the third stage.

She appeared to have stabilized, and support of this view was provided by the fact that from January 3rd to January 6th menstruation occurred, in relation to which she was quiet and well behaved.

On January 7th, 1938, under general anaesthesia, the purulent tonsils were removed by dissection, the right tonsil was adherent.

Temperature rose on the night of the operation to  $100.2^{\circ}$  F. falling to  $97.2^{\circ}$  F. next day and rising again to  $99.4^{\circ}$  F. and again falling to normal on the 9th and 10th.

To assist healing, on 10th 2 cc. prontosil were given intramuscularly, temperature rose to  $101.6^{\circ}$  F. falling to normal next day when another 3 cc. prontosil were given and again temperature rose, this time to  $102.2^{\circ}$  F., pulse being 100 and 108 respectively.

By the afternoon of the 12th temperature was normal and continued so, no more prontosil was given until 18th when, healing being in a progressing state, 2 cc.



prontosil were given without any pyrexial or pulse response. At about noon on 19th 3 cc. prontosil were given intramuscularly. There was no pyrexial response until about 20 hours later when temperature rose to 98·8° F., pulse showing no variation. Temperature fell to normal and continued so accompanied by satisfactory healing of the fauces and without any disturbance of the glands of the neck.

By January 23rd she was up and about again and quite clearly much improved mentally and physically.

The blood count now showed :—

Erythrocytes ...	4,150,000	<i>Differential count—</i>	
Leucocytes ...	7,500	Polymorphonuclears ...	60 per cent.
Haemoglobin ...	80 per cent.	Lymphocytes ...	32 per cent.
Colour index ...	0·96	Large mononuclears ...	6 per cent.
		Eosinophiles ...	2 per cent.
		Basophiles ...	0 per cent.

Improvement was also shown in the gums which were now less swollen and firmer in texture since the removal of the purulent tonsils and she was able to detect, with increasing confidence, the exact site of the buried root. On February 11th this root was visible through the gum, its extraction was consequently quite easy and no physical or mental reaction ensued.

From February 14th to 19th menstruation occurred without reaction of any kind mentally or physically.

Temperature now varied from 97°F to 97·4 °F.

From February 12th to 28th a colsulanyde powder was given three times a day. This treatment caused no pyrexial or other untoward reaction but she insisted that she slept better since taking these powders. They made her feel “misty” for about an hour, but after that sensation had passed off she experienced nothing more, other than a restful sleep.

A review at the end of February 1938 found that she still had good insight into her case and able to discuss it with composure and appreciation, replying to questions relevantly and briskly and showing by her supplementary statements that she was very alert to the discussion.

Normally orientated she is sure life is worth living and is now very anxious to return to her home, nevertheless she is very emphatic that it was correct and necessary that she should have been admitted to mental hospital, adding, “I know now I was real mental when I came in.” In consequence of her appreciation of the alteration of her state she is very grateful for the treatment she has received. In this case not only did symptoms of a sexual character appear in the mental disorder but, although at the time of her admission, the genital tract on examination showed no abnormality yet during the whole of the development of the case a disordered state of the generative system occurred and merits attention.

Menstruation began at 12 and continued regular until 1936, 4 days, 4 weekly. She had dysmenorrhoea until the birth of the first child, the whole pelvis was painful, after the birth there was very little pain but following the birth of the second child, 16 years ago, she had a “white leg” and was off her feet for nine months.

In January, 1936, menstruation, which for the preceding six months had been appearing regularly every three weeks now appeared every fortnight but rarely lasting less than three or four, or at the very least, two and a half days, preceded and accompanied by pain in and swelling of the right leg, the latter so severe as to prevent her getting about.

The flow at these epimenorrhoeic appearances was usually fairly normal but the period from July 26th to 29th was very profuse, although the subsequent fortnightly appearances were again as formerly. She had been a poor sleeper for years and now with the epimenorrhoea this got worse.

It was in relation to the July period that depression first appeared and increased in intensity; associated with it she became muddleheaded and lifeless—“at times I did not know what I was doing I felt so tired.” She had had headaches for years, on and off, for a week before each period but now, when she got muddled, the headaches vanished as such; she was very surprised at this development and spoke to her husband about it.

On November 16th, 1936, she had a show of milk in the breasts and the abdomen became swollen, so much so that these conditions caused her to consult her doctor as to whether she was pregnant. Following examination she was told this was not the case. Her memory of the later developments of her case is poor, owing to the mental confusion, but she knows she was admitted about 10–11 p.m. at night



because she was so restless and she thinks her periods continued as formerly until she was admitted to the mental hospital on April 9th, 1937, when she knows that on that occasion her right leg was very swollen and painful. Menstruation then occurred, after admission on April 12th and lasted for two and a half days. After that she had amenorrhoea until the one day show on October 2nd, and then again until January 3rd and February 14th in 1938.

At the time of the October show, the flow was scanty, she felt very cold and shivered a little but she had no headache or abdominal pains but the next day her neck became swollen and painful and temperature rose, as we have seen.

She has no memory of the salient facts set out in the medical examination of her case, she has no memory of voices or visions or of spies, clues, detectives and codes. She considers she only came to herself, "when I had the prontosil for the sore throat," in September and has maintained normal consciousness since then.

She had never had swollen glands in the neck before they came up on the right side after healing had followed the removal of the diseased teeth, also on the right side.

She now has no sensory disturbances and no memory of them except the headaches and sleeps well, especially so since taking the colsulanyde powders, and there has been no swelling of the right leg in relation to the October or January and February menstruations.

Is now, she assures me, cheerful, happy and contented and objectively that appears to be true. She feels much stronger now. Is glad she followed the recommendation to have her tonsils out because she feels "cleaner and clearer since." She certainly is more alert. She displays sociability, normality in conversation, and there has since the first prontosil course been a complete absence of obscenity, shows interest and initiative in her environment and a ready capacity to help. Her attitude towards her husband has been wholly satisfactory and she has accompanied him on leave of absence with alacrity, returning to the hospital in a perfectly normal manner. Her weight at the end of February was 9 st. 9 lbs., a gain of eleven pounds on her admission weight. Facial colour and tone and general stance indicate the improvement in muscle tone.

Blood pressure was now 144/96 mm. Hg.

Urine, 1018, acid, no abnormal constituent.

Faeces. Bacteriological examination—culture—no abnormal organism detected.

Discharged recovered, March 10th, 1938.

*CASE 30.—A History of Head Injury in a case of Stuporose Depression but Treatment of Oronasopharyngeal Sepsis was followed by Mental Recovery.*

10788. D. G., male, labourer, married, aged 28 on first admission to mental hospital on September 9th, 1937.

*History. Family.*—No psychosis, tubercle or alcoholism in family. Three children.

*Personal.*—Won a scholarship and attended a secondary school. Rather reserved disposition, never drank but smoked somewhat excessively, interested in books.

*Present illness.*—He had had "colds as a result of his work," his wife stated; but otherwise she had never noticed anything wrong until in April, 1937 he had a head injury caused by an 18 inch spanner falling on his head, which she said left a scar about an inch long. Since then he has always complained of severe pain in his head. He lost appetite and his weight fell from 11 st. 7 lbs. to 9st. 6 lbs. He never displayed violence "but went into a decline and began to talk foolish," once he said it was a pity we could not die together and then he said "Oh, my head, the pain is there again." "He fancied people were all against him and that he had developed into a woman." "Would sit up in bed at night suddenly and then became calmer." He was "always strange at night time." "One night something snapped in his head and the sweat poured out of him, next day he was sensible but the day after uttered more foolish talk."

He went to his doctor on July 1st who found that he seemed to forget things during the last few days. Not sleeping. Speech altered. Had no mark on head.

He was taken to hospital where consideration was given to the diagnosis of post-encephalitis as he appeared to have the characteristic speech. That point was weakened by the fact that that change in speech was only of recent appearance. He was then regarded as a hebephrenic schizophrenia case. The blood Wassermann was negative. Radiography of the skull was negative for injury but an area of calcification was found in the falx.



Cerebrospinal fluid, Wassermann negative. Cells less than 1 per cmm. Protein 20 mgm. per cent. Sugar 0.7 per cent. Urea 0.019. Chlorides 0.71. It was observed that he was dull and lacking in general interest; hid himself in out of the way corners and avoided the company of other patients. was slow in thought and hesitant in replies. Said he was worried over the crimes he has committed and that everything he did was wrong. Was impulsive in behaviour. Medical examination found that he was in a state of great apathy and abstraction; gloomy and fixed in expression, he showed no emotional changes whatever; would not smile; questions had frequently to be reiterated to elicit a reply and frequently none was forthcoming. Said he accused himself of doing and saying wrong things; said that as a boy he "sat on a monument to Edith Cavell" and believes "that crime" was the beginning of all his troubles. Was not amenable to reason.

*On admission to mental hospital. Physical state.*—Height 5 ft. 7½ in. Weight 10 st. 4 lbs. There were some old scars on both legs and left elbow and left knee, but there was no striking scar visible on his scalp.

Pale complexion, cardiac limits and sounds were normal, B.P. 125/85 mm. Hg. No oedema. Temperature 96.8° F. Dental sepsis present, carious teeth.

It was elicited that he had frontal headache and that he had had frequent colds and sore throats. No neurological signs were found except that the articulation was regarded as of a post-encephalitic type. Thoracic and abdominal viscera and urine were normal. Blood Wassermann was negative.

Cerebrospinal fluid, Wassermann negative, cells 6 per cmm. Negative colloidal gold curve and no excess of globulin.

Faeces; bacteriological examination: streptococcus salivarius; streptococcus saprophyticus and B. Friedlander, were identified. Ophthalmological examination—required glasses but formula to await completion of treatment of oronasopharyngeal sepsis.

*Mental state.*—Reports given previously were confirmed.

He displayed a fixed dull expression. Apathetic and depressed. Long latent period. Retarded association of ideas. Imperfect orientation. Poor memory. Lacked insight. Delusions of having committed many crimes. Lacked interest in himself and environment. Incapable of displaying any facial emotional variation, as by a smile.

*Progress.*—Wax was removed from both ears. Continuous colon irrigation produced a foul return at two sessions, and following these and simple medicinal measures he was somewhat less apathetic, able to be up and doing a little ward work but headaches were still present, and amelioration was only relative and slight. He nevertheless gained weight, at the end of September he was 10 st. 10 lbs. During October and November dental treatment was carried out in three sessions, 16 carious and septic teeth in all including 2 impacted but partially erupted lower wisdoms whose residual sacs were purulent. An ear, nose and throat examination on October 15th found: anterior rhinoscopy; both sides heavily infected, left side almost completely blocked with oedema. Much pus on right side.

Posterior rhinoscopy: clear.

Tonsils both large and purulent.

Ears: both drums thickened and retracted.

Nasal sinuses. On transillumination. Both antra black, both frontals dark.

Tonsillectomy and general sinus examination necessary.

On November 10th he was slightly less apathetic but still dull and unsocial but showed some appreciation of and interest in his surroundings, on the whole an improvement following dental treatment. This improvement was not, however, progressive but his weight rose to 11 st. 3 lbs.

On December 2nd colon irrigation evoked a clear return.

On December 3rd, under general anaesthesia a general nasal sinus examination found all sinuses devoid of exudate except the left antrum which contained thick pus. The left antrum was drained intranasally and the purulent tonsils, not found to be adherent, were removed by dissection. On December 15th he was still dull and apathetic.

Neoprotosil spray was given into the nose and from December 16th, 1937 to January 3rd, 1938 a course of intramuscular injections of soluseptasine was given on alternate days, commencing with 2 cc, 3 cc, 5 cc, and the remainder 10 cc, 60 cc in all. Temperature rose on two days to 99° F. following the operation but otherwise there was no pyrexial reaction to this or the injections of soluseptasine.

Ophthalmological examination found no abnormality of discs, fundi and media. glasses were prescribed. Colon irrigation now brought away large flakes of mucopus,



From January 18th to January 27th a course of Colsul (Crookes) injections was given  $\frac{1}{2}$  cc, rising  $\frac{1}{2}$  cc to reach  $2\frac{1}{2}$  cc. During this course three antral washouts were all clear and a colon irrigation later was quite free of mucopus in the returns.

At a review of his case on February 19th, 1938 he showed more capacity for attention than he had ever done previously since admission. He replied relevantly and coherently to questions. The replies at first were delivered slowly but later with increasing rapidity, although he occasionally stammered.

He said he had stammered since twelve years of age. He was able to give his own name and that of the hospital, ward and staff in charge of ward, day, week, month and date of month correctly.

He professed to remember admission here but was eleven days out on the date, giving 20th September. He recognized he was somewhat muddle headed then and that the steps taken for his care and treatment were then correct.

He states he remembers the circumstances of the accident which occurred at the end of April, 1937.

He was working in High Street for Messrs. B. as a bricklayer's labourer. He was hit on the head with a piece of iron, he does not know what it was, it might have been a bolt, but he is quite sure that he did not lose consciousness.

It caused a cut in the head, he went, and remembers going to, the General Hospital where it was dressed, but he was not taken in nor was a stitch inserted and he then went home and afterwards paid two visits to have it dressed, when it healed quite satisfactorily. He saw his panel doctor on the day after the accident and again the day before returning to work, his doctor then regarded the condition as a minor one.

After a few days he returned to work but he was dismissed from his job. He got another job with Messrs. C. where he did ordinary bricklayer's labourer's work for a fortnight. His memory of what happened now is less clear. He knows he was sent by his doctor to a general hospital, he does not know what for and after 10 days was transferred to another hospital where he was resident for a fortnight, then going home.

He knows he was again admitted to the last hospital where he stayed during August until he was admitted to mental hospital. He considers he has never lost conscious knowledge of himself during the whole of that time.

During this time he had been troubled with left frontal throbbing headaches which sometimes kept him awake at night. He was never free from headache for a whole month although sometimes a week might intervene between the attacks. An attack would last two or three days, never a whole week, and it would be continual, day and night. He had had the headaches before the accident although hardly as severe or painful. Perhaps he had been thus troubled with the headache for 18 months before the accident and both before and after then it has always been situated in the left frontal region, he uses his left hand to indicate the location. He has no memory of any scotoma or other visual disturbance but did get head noises sometimes in the left, never in the right ear. These head noises he also had before the accident, it was principally a humming sound which appeared and disappeared with the headache and like the latter varied in intensity. Sometimes one was more marked than the other and conversely.

He never had any bleeding from the ears in relation to the accident, and he is quite sure that he had the head noises and headache before the accident and they were also present on admission. They ceased, he thinks, after the first session of dental extraction and he then began to feel better.

He has no memory of any cacosmia but he had a cacogeusia for a long time before the accident. Also before the accident his teeth had been going bad. He often used to get stuffed up in the nose, on one or more sides—not necessarily on the left only, and sometimes he spat up stuff from the back of the nose and throat, before the accident. All these discomforts have now ceased. He says he feels happier now and more alert and thinks he is "waking up," he feels thoughts come quicker than they used to do. He remembers telling the doctor at the hospital about his worry concerning sitting on the Edith Cavell monument and recognizes that idea of his was all nonsense. He can smile now at his silly depressed ideas.

Nevertheless he still is in a state where ideas of unworthiness would be easily accepted. When asked if he thinks he has done wrong he replies that he supposes he has, but when pressed to give examples or explain what he means he is unable to do so. When he is informed that he has done nothing wrong but has had bad luck he volunteers that this depressed ideas have been due to his imagination and promises he will no longer let them worry him.



A bacteriological examination of faeces towards the end of February found :—  
B. Friedlander, streptococcus saprophyticus and streptococcus anhaemolyticus.

Radiography of the skull showed a densely calcified nodule in the mid-skull area, a calcified pineal gland.

A blood count on March 15th showed :—

Erythrocytes	...	4,500,000	<i>Differential count—</i>	
Leucocytes	...	9,300	Polymorphonuclears	... 47 per cent.
Haemoglobin	...	83 per cent.	Lymphocytes	... 48 per cent.
Colour index	...	.92	Large mononuclears	... 4 per cent.
			Eosinophiles	... 1 per cent.
			Basophiles	... 0 per cent.

He was now able to work out of doors and with improved climatic conditions there was a resurgence of physical and mental vitality, his wife stated he had not been in such good health for some time. He was regaining confidence and losing residual depression and going on weekend leave.

At the beginning of April a blood count showed :—

Erythrocytes	...	4,900,000	<i>Differential count—</i>	
Leucocytes	...	12,000	Polymorphonuclears	... 72 per cent.
Haemoglobin	...	90 per cent.	Large mononuclears	... 4 per cent.
Colour index	...	.92	Lymphocytes	... 23 per cent.
			Eosinophiles	... 1 per cent.
			Basophiles	... 0 per cent.

His weight had increased to 12 st., a gain of 24 lbs. on his admission weight.

A bacteriological examination of faeces on April 6th found only B. Friedlander and the Wassermann reaction in the blood on April 7th was still negative.

His mental state was now at its best since admission. He had regained self control, was cheerful, brisk, alert, composed and contented and the stammer was less in evidence. He worked well out of doors, enjoying his regained strength and going home on weekend leave. Facial colour and tone, carriage and stance had much improved.

He was discharged on April 7th, 1938.

*CASE 31.—A case of Psychosis of Super-Lactation with High Dysentery Titre.  
Recovery followed Treatment of Severe Dental Sepsis.*

10699. H. G., married, housewife, aged 42 on first admission to mental hospital on June 16th, 1937.

*History. Family.*—No insane relatives known. A brother is suffering from tuberculosis. Father years ago was very much inclined to drink.

*Personal.*—Reached highest class at school at fourteen, on leaving was employed as a press hand but for about twelve years was at home looking after a sick mother. Married eleven years ago, two children, younger aged a year on June 30th, 1937. Had instruments with the first but not with the second. Formerly her disposition had been sociable and cheerful but in recent years she had become rather unsettled, hasty, lacking in industry and occasionally slightly intemperate but also she had complained of sore throats and headaches. Although she had not previously been unstable mentally, in February, 1937 she developed a "slight domestic grievance." She had before then complained of sleeplessness and headaches and had lost weight.

Mental symptoms after this became more pronounced. She became obsessed with the idea that "death was in her path" and therefore nothing was worth while. "After all grievances had been cleared up she constantly brought the matters up in a more or less atagonistic way and she was not satisfied to let the matter close." "She gradually drifted despite all efforts to bring her to see things normal." Imaginary voices were constantly predicting death. More acute symptoms were manifested during the last two months preceding admission.

Seen by a medical examiner it was found that she was obsessed by the words and idea: "Die, die, die," that she must die, and appealed to have this taken off her mind. She said that nothing was "real" any longer, "life," "nothing on God's earth," and that she had lost all feeling for her husband and children.

A health visitor, in the interests of the child, found that she neglected her housework and was indifferent to her year old child; that she constantly talked about dying and having to die, she talked to anyone in the street about it, asking whether



they could perform a miracle. Her husband observed that she was depressed and that she had said she thought she had lost her love for her children and that life was no longer real.

*On Admission to Mental Hospital. Physical State.*—General condition poor from toxæmia. Sallow appearance. Height 5ft. 1in. Weight 6st. 4lbs. Temperature 97.4° F. Cardiovascular system, nil abnormal. B.P. 118/80 mm Hg.; pulse 76. Lungs and abdominal viscera nil abnormal except severe constipation. Tongue furred, gums inflamed, considerable dental sepsis, fauces and pharynx congested. Ears wax both, but hearing good. Complains of headaches, cacosmia, cacogeusia. Reflexes normal, sphincters controlled. Muscular tone and power poor, especially abdominal wall.

Gynaecological examination: vaginal walls lax, cervix uteri showed evidence of parturition but not of infection, corpus uteri showed a moderate degree of displacement but no enlargement. Last menstrual period June 3rd. Urine, 1024, acid, faint cloud of albumen, nil else. Blood: Wassermann reaction negative. Widal test all negative except for B. Dysent. X. 250 and B. Dysent. Y. 50 Oxford units.

Faeces: two bacteriological examinations, no evidence of dysentery organisms.

*Mental State.*—Hostile expression and attitude. Depressed, fearful and suspicious. Hallucinated, says she hears "voices" telling her "You are going to die," and that she cannot get better. "I hear this pounding through my brain night and day." Elongation of latent period response, muttering at times. Association of ideas retarded. Disorientated. Tendency to negativism. Appears occasionally to recognize she is ill. Insists she has lost all love for her home and children. Lies in bed incessantly chattering about her state.

*Progress.*—The course of her case can be divided into three phases. The first phase lasted until the end of October, the second until the end of December and the third until discharge from hospital. The first phase was one of continued mental instability during which she remained depressed, apprehensive, deluded, variably garrulous, apathetic, confused and emotional.

When in the chattering state continually harping on her loss of love for her family, nothing else could hold her interest. She was quite self-centred and asocial.

Treatment included removal of wax from ears, colon irrigations and dental extractions for the gross sepsis.

The dental extractions took place in sessions: on July 8th, 22nd, August 5th, 19th, September 2nd, 16th, 30th and October 28th, thirty dental elements were removed, an average of less than four extractions at each session. This spread of the duration of the extraction over a lengthy period was necessary in view of the severity of the sepsis and the poverty of her general condition, in order to minimise the exacerbation reaction. She was thus rendered edentulous. Associated with this she had sessions of continuous colon irrigation on August 3rd, 8th, 31st, September 6th, 20th and 28th and October 26th, the returns from these contained variable, sometimes large amounts, of mucopus. As the dental extractions and the colon irrigations proceeded she began to gain weight and at the end of this phase was 6 st. 11 lbs.

On August 27th an ear, nose and throat examination by the rhinological surgeon found:—

Nasal passages. Anterior rhinoscopy: both clear.

Tonsils. Both purulent; left not adherent, right adherent.

Ears. Both drums normal.

Nasal sinuses, on transillumination, all clear.

Nasal swab on bacteriological examination found no Klebs-Loeffler bacilli.

During this phase menstruation appeared on June 20th, July 18th, August 17th, September 14th and October 8th.

The first three of these were associated with a pronounced mental exacerbation reaction wherein she showed increase of mental symptoms, that in September was a turning point period, there was no pronounced change but she was a little brighter at the onset, soon becoming depressed again, whilst that in October indicated the end of the first phase had been reached, a slight mental improvement was noticed, her expression was more cheerful and, whereas formerly she spoke in a whisper, now her voice had more power.



During the second phase lasting through November and December definite indications of change of mental and emotional state were manifest. A course of three sessions of continuous colon irrigations on November 2nd, 16th and 29th now gave returns free from the mucopus observed whilst the dental sepsis was still present.

On November 3rd a *blood count* was taken: *Differential count*:

Erythrocytes ...	...	3,650,000	Polymorphonuclears ...	62 per cent.
Leucocytes ...	...	7,500	Lymphocytes ...	26 per cent.
Haemoglobin ...	75 per cent.		Large mononuclears ...	9 per cent.
Colour Index ...	...	1.03	Eosinophils ...	1 per cent.
			Basophils ...	2 per cent.

Menstruation occurred on November 6th, associated with this she was mentally much better, and following this, on November 9th she developed a pyrexia up to 100.2° F. with general systemic reaction of aching limbs and signs of nasopharyngeal inflammation. Temperature was normal next day and the condition rapidly cleared up.

From thence onwards it was seen that the mental condition was much improved, she was not nearly so agitated and depressed. This progress continuing she was now considered to be sufficiently well to warrant removal of special observation against suicide. The progress of the amelioration was not hindered by the non-appearance of catamenia in December, in fact at the time when the menses should have occurred she showed a pronounced improvement in the mental state and in general condition, especially in facial colour and tone and she was then transferred to the convalescent bungalow.

At the end of December, 1937, she was now much more cheerful, conversing normally with patients and staff, a willing worker in any capacity and had been out on week-end leave of absence at Christmas from which she had returned happily having shown no sign of former depression.

The third phase, that of stabilization, can be allocated to the remainder of her stay in mental hospital. The jaws were x-rayed and found to contain no buried or unerupted dental elements. Menstruation occurred on January 4th without any mental reaction. She went out on week-end leaves, returning smiling and happy. At a review of her state on January 12th, 1938, she was cheerful, brisk and alert in her appreciation of, and response to, questions and normally orientated, she was able to sustain conversation thereon with interest and alacrity. She fully recognised it was right and proper that she should have been admitted to mental hospital because she was, she now knows, mentally and physically ill.

She had given birth to a baby on June 30th, 1936, and only ceased suckling it a month before admission.

Since Christmas of 1936 she had not been feeling well and she began to get depressed about March, 1937. Later she became muddle headed and reached the stage of "didn't care what happened." She became unable to converse properly, became unable to do anything, simply sat and was unable to utter more than a few words.

She remembers using the word "Die, die," she had been in that state for three months, a state in which she was unable to converse and could only utter words having no relevance to what was said to her. This word "die" became an obsessional utterance representing her appreciation of a feeling of utter physical and mental incapacity to do anything for herself or others and she was just able to utter this word as a desperate attempt at endeavouring to convey her feeling of wretchedness. Now she feels better, especially during the last two to three months when she has been gradually recovering. She knows her teeth were in a bad state on admission and that their extraction has been followed by a return of physical and mental capacity and the cessation of the symptoms she formerly experienced. Life is now very much worth living and especially has she appreciated her returning health during the last few weeks.

She no longer has headaches, cacosmia or cacogeusia, although she is not wholly free from sore throats. She has no complaints, on the contrary is grateful, for everybody has been kind and done the best they could for her. She is not worrying about having been in a mental hospital, "I am only too glad to be better," is her common sense way of facing reality. Her bowels act regularly now. Objectively, she is very much improved physically and especially in facial aspect, colour and



tone. She has gained 15lbs. on her admission weight. She works in any capacity. Has been home on three week-end leaves, returning happy and well with satisfactory reports.

Mentally, she now appeared recovered and she was discharged to her husband's care on January 13th, 1938.

CASE 32.—*A case of Depression, Confusion and Fear clearing after Treatment of Intestinal Sepsis by Continuous Colon Irrigation and Sulphanilamide.*

10849. A. M. H., female, married, housewife, aged 52 on first direct admission to mental hospital on November 3rd, 1937.

*History.*—Left school at 14 years of age in Standard VI. Usually cheerful disposition, frank, sociable, steady and industrious. Warehouse assistant before marriage. Measles and mild influenza. Married twenty-five years. No children. Miscarriage through a fall downstairs in 1918. Menstruation ceased at fifty.

*Present Illness.*—Worried for last nine months previous to admission over her husband's illness. For some time there had been slight headaches, loss of appetite and weight and lack of concentration. Then depression appeared five weeks ago, regarded as caused by looking after a friend who had a seizure, as well as her husband. She became greatly perplexed in her run-down state, repeating that she was bewildered.

She imagined she was pregnant, became unable to do her work, thought people were talking about her, complained of bad smells.

*On Admission. Bodily State.*—Height, 5ft 1in. Weight, 9st. 5lbs. Temperature, 98.4° F. Pulse 78. Respirations 20. General state fair. Slight arthritic changes. Cardiac limits normal but sounds poor in quality. Pulse volume and tension fair, B.P. 130/90 mm Hg. Peripheral circulation fair. Tongue furred. Gums healthy. Edentulous. Wax in ears. Infected tonsils. Headaches frontal and vertical. Pupils normal. Bilateral ptosis. Hearing good. Cacogeusia. Sphincters controlled. Articulation fair. Gait steady. Some tremor of hands. General muscular system fair tone but abdominal wall flabby. Abdomen and kidneys nil. Very constipated. Last catamenia, two years ago. Urine 1022 acid. faint cloud of albumen, nil else.

Blood. Wassermann reaction, negative. Widal test, B.Dys. X. 180, B.Dys. Y. 25, Oxford units. Remainder negative.

Radiography of jaws for buried elements, etc., negative.

Faeces, Bacteriological examination: B. Friedlander, Streptococcus Faecalis, Streptococcus Equinus. Gynaecological, nil abnormal.

*Mental State.*—Dull, depressed, apprehensive and suspicious. Disorientated, hallucinated, heard "voices" saying things about her, muttered to herself. No insight into her condition. Negativistic, mildly resistive.

*Progress and Treatment.*—Removal of wax from ears had no effect on auditory hallucinations, these and the delusions of suspicion and persecution persisted. She took no interest in her surroundings, but insisted that the neighbours talked about her and "scandalised" her, they said she had done some wrong.

On November 9th a continuous colon irrigation was given and on the 11th, although dull, apathetic, often quarrelsome, and still persecuted, she was eating well and did a little work, albeit not too willingly. By November 15th it was clear that she had improved considerably during the past few days, she was now very alert, working willingly and with initiative. Her facial expression was now quite different, she had lost the aspect of fear and was now cheerful.

On this date and on the 24th continuous colon irrigations brought away large amounts of muco-purulent discharge from the bowel. She was by this time very greatly improved mentally although there were brief phases of the old fearful state reappearing and then receding.

During the first week of December she had a rhinitis with mild pyrexia and herpes of the upper lip, but was able to co-operate in continuous colon irrigations on the 7th and 14th, on both occasions the muco-purulent content of the returns progressively diminished and to one given on the 29th they were quite clear.

She was now very much improved mentally and physically. Bright, sociable and happy. Very interested in her surroundings and fellow patients. There was no evidence of delusions or hallucinations and she appeared normal.



On December 31st, 1937, her case was reviewed by the rhinological surgeon who found :—

Tonsils, considered to have no gross infection in either tonsil.

Anterior rhinoscopy, quite clear.

Ears, drums, normal.

Nasal sinuses, on transillumination, antra and frontals all clear. No further treatment was considered necessary in this department. A continuous colon irrigation on January 3rd, 1938, gave a clear return. From this date for a week she was given a dose of Colsulanyde (Crookes) twice daily.

Bacteriological examination of the faeces on January 11th, 1938, found only *B. Friedlander*.

A review of her case now found she was normally orientated and able to reply briskly to questions and cooperate in conversation on her case with initiative and interest. She had regained insight and appreciated that she had been mentally ill and that the steps taken to treat her were necessary and correct. She had been gradually getting run down and then six weeks before admission she developed insomnia, a fortnight later depression developed and on some occasions if she did get to sleep she woke up suddenly, trembling. A doctor gave her medicine but she did not appear to improve so, as she "was beginning to thing things and people were persecuting" her, she went into a general hospital, she knows that then she was in a depressed, muddled state and she has no memory of what happened there. The "voices" as far as she remembers had not a true sound character but were the results of her fearful imagination. She does not hear voices talking about her and she has ceased to hold the delusional belief that people trouble to talk lies about her.

Life is now worth living and she has no thought of self injury. She is quite sure on this point. "I feel heaps better than on admission. The rest has done me good."

She appreciates the benefit of bowel irrigation. "I felt better the day afterwards."

She did have bifrontal headaches on admission but these have passed away and she now has neither cacosmia or cacogeusia.

Objectively there was a pronounced improvement reflected in her facial aspect, carriage and stance. She had been working well in the laundry and been home on weekend leaves, always returning satisfactorily.

She left the mental hospital on January 13th, 1938, recovered.

*CASE 33.—A case of Confusion and Fear-Anger clearing after Treatment of Pharyngeal Sepsis followed by Protamine Zinc Insulin Administration.*

10790. N. A., widow, housewife, aged 47 on first admission to mental hospital on September 11th, 1937.

*History.*—No psychotic heredity : On leaving school she had taken up warehouse work and married on May 30th, 1914, but lost her husband in the Great War in September, 1918. Had no illnesses save measles in childhood and occasional headaches until she developed "tuberculous" cervical adenitis, for which she had an operation in May, 1937, followed by ultra violet radiation treatment to stimulate healing. Objectively it appeared that there now followed sleeplessness and "surmising," on and off for about three months, becoming worse during the last month when she heard and saw imaginary voices and visions.

She developed a state of acute fear and became uncontrollable. Examined medically she said that police watched her house at night and that they put search-lights on her; that she could hear the neighbours talking about her; that they could see everything she was doing through holes in the walls; that people were taking her money.

*Physical State on Admission to Mental Hospital.*—Height 5 ft. 1 in. Weight 8 st. 10 lbs. Temperature 97° F. to 97.2° F., pulse 70, respiration 20.

Operation scars both sides of neck. Fair nutrition.

Joints show slight arthritic changes.

Cardiac apex beat, fifth space, 4 in. from midline; a rough mitral systolic murmur and reduplication of second sound at apex. B.P. 230/140 mm Hg.

Lungs, impaired resonance at both apices more marked on left side, harsh breath sounds.

Tongue furred. Gums healthy. Edentulous, confirmed radiographically. Wax in both ears. Throat infected. Tonsils enlarged, especially left. Frontal



headaches. Stabbing pains in eyes and head pains all over. Cacosmia and caco-geusia. Pupils contracted, react to light and accommodation. Bilateral ptosis. Conjunctivæ slightly injected. Bilateral chronic blepharitis. Constipation. Urine normal. Nasal swab, no K.L.B., Sputum, no T.B.

Faeces, bacteriological, no T.B., but B. Proteus and B. Friedlander. Blood: Widal test, negative to all except B. Dysentery X, 35 Oxford units: Wassermann reaction, negative.

Gynaecological examination, nil abnormal, infantile uterus, pinhole os, good position. No pregnancies.

*Mental State.*—Confused, sullen, morose, abusive, hostile. Delusions of suspicion and persecution. Auditory and visual hallucinations. She sees and hears the neighbours who watch her and follow her ringing bells and coming with tin bowls to hit her on the head; voices night and day say lots of nasty things about her. Men's voices shout, "Fetch an ambulance and do this woman in." Disorientated. Negativistic. Association of ideas is much retarded and limited to her persecutory notions. Uninterested in her surroundings and incapable of concentration. Whining hoarse speech, poorly articulated.

*Progress.*—Wax was removed from ears. Constipation was relieved by calomel following a 400 ounce saline colon irrigation, which brought away a large amount of mucopus and ten days after admission, although blood pressure had fallen to 190/130 mm Hg., she was still hallucinated, deluded, sullen, abusive and noisy, but was eating and sleeping well.

Rhinological examination September 24th found anterior nasal spaces clear, posterior not seen. Tonsils and fauces: liquid pus both tonsils; both lateral pharyngeal bands enlarged.

Ears, right drum, retracted, greatly thickened, old healed otitis media, left drum, dry central perforation.

Nasal sinuses on transillumination, antra black, frontals clear. As far as could be ascertained her menstruation occurred last a month before admission but it failed to appear in September, and, as so commonly obtains under these circumstances, mental symptoms were more pronounced at the time when it should have appeared. At the end of September her weight was 8 st. 10 lbs.

From September 27th to October 12th three colon irrigations produced diminishing returns of mucopus. At first she was as formerly, deeply depressed, abusive, hallucinated, and deluded, constantly and peevishly insisting that she had been tricked but towards the latter part of that treatment she became much brighter, more composed, and sufficiently able to concentrate as to help with ward work.

A photograph on October 6th shows loss of facial tone, a somewhat sullen aspect, but the eyelids are equally balanced and free from swelling.

However, on October 10th the left upper eyelid was swollen slightly in its outer half surrounding a sty, associated with slight conjunctivitis. Later a venous congestion in the area spread to the tissues of the lid and appeared around the inner canthus and so below the lower lid, the whole producing a bruised appearance suggestive of a black eye. There was no history of a blow or accident and she strenuously denied hitting herself or being struck. A photograph taken on October 15th shows a well marked black eye effect distributed over the upper lid, inner canthus and below the lower lid on to cheek, in the latter site the area of a halfpenny. Ear, nose and throat re-examination on this date confirmed the previous findings and conclusions.

On October 16th menstruation occurred, although brighter at onset day she relapsed to her state on admission on the second day. The palpebral condition was therefore a menstrual exacerbation of the chronic blepharitis, the bruising black eye effect arose from a localized venous thrombosis resulting from the sty, and rapidly cleared in the post-menstrual phase although this was just the opposite with the mental state. She was again depressed, but abusive and noisy by day and night, moaning incessantly, using foul language, disturbing other patients, resistive to nursing and attempting violence. Restless and uncontrollable in her agitation. On October 22nd under general anaesthesia, removal of large purulent and adherent tonsils by dissection and general nasal sinus examination. The posterior wall of the sphenoids was at  $3\frac{3}{4}$ ". All sinuses were devoid of exudate, they were copiously irrigated with hyd. biniodid, solution and argyrol instilled into all. Recovery from the operation was without incident but without effect on the mental state. She was miserable, complaining and resentful of treatment.

From October 25th to November 8th she had a course of prontosil injections intramuscularly, one every second day. The first was 2 cc., second 3 cc., third, fourth and fifth were 5 cc. each, and the last three injections were 10 cc. each.



No complication occurred, healing of the throat was wholly satisfactory, but during their administration she showed no mental improvement, continuing noisy, obscene, deluded and miserable.

At the end of October her weight was 8 st. 1 lb.

On November 4th the right upper eyelid suddenly became swollen, congested and ptosed, so much as temporarily to obscure vision, but there was no black eye effect although otherwise the development was during the ensuing days like that previously described in the left eyelid.

After the middle of November it gradually subsided and the eyelid healed.

Menstruation should have occurred just before this time but remained in abeyance, and it would appear therefore that again this palpebral condition was a menstrual exacerbation of the chronic blepharitis, which rapidly cleared in the post menstrual phase.

Again, as with the amenorrhoea on admission and so now, there was an exacerbation of the mental state.

She was noisy, miserable with futile peevish whining, often exceedingly abusive, always suspicious and persecuted.

At the end of the month her weight was 7 st. 12 lbs., and she was still deluded, hallucinated, suspicious, persecuted and noisily abusive, but eating and sleeping well.

Ophthalmological examination found only minor refraction errors remediable by lenses.

Menstruation occurred from December 10th to 14th and before, during and after this there was no amelioration of the mental state which continued as just described with anger manifestations becoming more pronounced.

A course of three sessions of colon irrigation removed only very little mucopus from the bowel.

From December 18th to January 8th a course of protamine zinc insulin injections was given, one every other day, first three injections were 10, the remainder 15 units each. Glucose was given two hourly. Three basal blood sugar estimations before and during the course were 98, 97 and 76 mgms. per 100 cc. At no time were there any unfavourable reactions, the pulse 88 showed no variation throughout.

Up to this time she had been irresponsibly noisy with her persecutory delusions, "they" were taking her character away and "trying to rob her of her pension" and this, apparently demented condition, continued until the end of December when she became much quieter and better behaved, although she still asserted that her nieghbours had got her "in here." Her weight at the end of December was 7 st. 10 lbs. This reduced vehemence, increased composure and better attention capacity continued although she still was apparently hallucinated and held her delusions. It was considered that the abatement of the anger phenomena, the object for which the insulin course had been instituted had been attained and further that this had happened in the premenstrual phase, for menstruation occurred from January 9th to 12th, 1938, and during this she was quiet and well behaved. For this reason the course was stopped. It was now recognized that she was in better physical and mental state than at any time since admission. She volutarily stated that she recognized the "voices" were not real and her persecutory ideation disappeared.

A review of her state on February 2nd found that she was composed and co-operable. She had co-operated, without abuse as formerly, in two sessions of colon irrigation, at which the returns contained negligible amounts of mucopus. Her weight was now 8 st. 9 lbs. Cardiac limits and sounds: apex beat 5th space  $3\frac{1}{2}$  in. from midline, no murmurs, accentuation of second sound in mitral area; B.P. now 169/120 mm. Hg.

Urine 1020 acid, sterile, nil abnormal microscopically or chemically. Lungs, apices nil. Eyelids now quite healed. No ptosis. Facial expression, colour and tone much improved and normal emotional play is unrestricted.

She replies relevantly and coherently to questions and converses normally. Properly orientated, she gives the date of admission correctly. She recognizes that it was right and proper that she should have been admitted to mental hospital as she now knows she was then mentally and physically ill, and considers that she is better than she was then and that life is now really worth living. She can now smile at her former troubles.

She knows, however, that she was very depressed and fearful and that her nerves were in a bad state and that they are better now. She is glad she came but sorry she had to do so and expresses her gratitude for what has been done for her.



She admits fully that the medical observations made prior to admission were true at the time to her, they were very real to her, but now she realizes that her trouble arose from her own imagination.

She does not now, as formerly, believe that everyone is against her, because she knows that we have done her good and is going to believe that other people will treat her as kindly if she lets them. She now feels happy and contented.

She is quite sure that the left "black eye" on October 15th "came itself," and that she had not knocked her eye region against the bed or been hit by anyone accidentally or otherwise.

She is very glad she had her throat operated on because she has had throat trouble for years, having been under a doctor for glands on both sides of the neck since 1924. These glands enlarged to the size of marbles although were worse and larger on the right side. Following a local application, they burst on the right side and the abscess was running on the right side for 18 months. She began to get depressed during the last 12 months prior to admission but it was during the 3 months after the operation for the removal of these glands that she became progressively worse. She has had for a long time right frontal headaches, premenstrual, relieved by the flow. The last period was the first to be free from headache. "Voices" came on during the last 6 months before admission. They began as a hissing sound in the right ear which later turned into "voices." Has not had any left side auditory disturbance. It was about 3 months before admission that the "voices" began to make statements and she thought she heard several people, men and women, talking about her, muttering pleasant and unpleasant statements about her, some were for her and other against. In order to get a maisonette to get away from these "voices" she went to the Council House.

She now recognizes that the "voices" were in her own head and they were not caused by the neighbours at all. It is now a month since she heard the "voices." The hallucination disappeared as "voices" during the insulin course corresponding objectively with improved conduct at that time.

The visual disturbances she complained of on admission she thinks now were in large part real, and she explains that what she was worrying about was light reflected into her room from a neighbouring works. The policeman, who was also the subject of her anxiety state, was doing his normal duty and not watching her as she formerly supposed.

She can hear and see better than formerly, she thinks, although she still needs glasses for small print.

She now has no cacosmia nor cacogeusia and has not been subject to attacks of giddiness. She has been working intelligently and with initiative and interest and been out on week-end leave with her sister, to whose care she was discharged. Recovered on February 10th, 1938.

*CASE 34.—A case of Hyperacute Fear following Influenza Resolving after Treatment of Oronasopharyngeal Sepsis and the Administration of Protamine Zinc Insulin.*

10172. M. G. H., single, female, telephone supervisor, aged 41, on first admission to mental hospital on March 13th, 1936.

*History. Family.*—Insanity, neuroses and consumption denied. Personal: Left a well known grammar school at 16½ years, became a telegraph clerk, later promoted to assistant supervisor.

Steady and cheerful, she rarely had more than an occasional day away from work, and apart from measles in infancy, she was not troubled with illness until she had an attack of influenza at Christmas 1935. In relation to this she became sleepless, experienced headaches and became depressed. Later, after a week's sick leave, although still depressed, she went back to work and from that time began her continual worry, whose subject for awhile was regarded as the cause of her depression.

Convinced she had done something wrong at the work she insisted that police action would follow, she expressed delusions of unworthiness and manifested fear of all actions of those around her. She ceased work on February 22nd, 1936, but rest and facilities for occupation at home failed to relieve the condition, which, in fact, became worse. Her anxiety became acute, discharging itself on the motor side in agitation, this rapidly intensified so as to cause her to become quite uncontrollable, necessitating removal to hospital, where she continued depressed and very agitated, constantly wringing her hands and repeating that, because she



had made mistakes at her work, she would have to go to prison, and, because her relatives had helped to evade the law by sending her into hospital, they similarly would have to be imprisoned. In the agony of her acute fear she destroyed her bed clothing. Sedative treatment was of no avail in reducing the intensity of her agitation.

She was transferred to mental hospital.

*On admission to Mental hospital. Mental state.*—The foregoing observations on her mental state were confirmed. Although not so on admission, she soon became normally orientated. She was very deeply depressed and suspicious, presenting constantly a sullen morose aspect. Mode of speech was muttering almost to inaudibility, and owing to this and her retarded association capacity and low grade mental confusion she was to a considerable extent incoherent. It was however possible to obtain confirmation from her of her delusions of unworthiness, need of punishment by the police and her intense fear. These she constantly repeated: "They will never take me back." "They will never forgive me." "My family are to go to prison." "What shall I do." "I know something is going to happen to me."

In spite of attempts to obtain it, a calm and coherent account of the cause of her anxiety was never given; attention was so reduced that she was unable to concentrate sufficiently to appreciate questions put to her or to frame replies thereto. It was therefore impossible to reason with her or discuss her case. Further there was a display of definite negativism shown.

*Physical State.*—Height 5 ft. 8½ in. Weight 8 st. 1 lb. General nutrition poor. Temperature 97·6° F. Heart and lungs normal, pulse 84. B.P. 125/85 mm. Hg. Thyroid not enlarged. Tongue furred and dry, some carious teeth, fauces and pharynx infected. Nervous system normal except for some tremor of hands. Poor muscle tone of trunk and facies, including bilateral ptosis. Pronounced constipation. Urine normal. Menses commenced on day of admission. Headaches elicited, severe at times. Blood: Wassermann reaction negative: Widal test negative for all groups except B. Dysentery Y, 12 Oxford units.

Faeces: bacteriological examination: streptococcus faecalis and streptococcus saprophyticus. No evidence of B. Dysentery. Gynaecological examination: intact, external genitalia normal. Rectal examination, normal except for a moderate degree of uterine retro-displacement not needing treatment.

Ophthalmological examination—nil.

Ear, nose and throat examination: nasal spaces: posterior, not seen; anterior clear; larynx normal. Tonsils—both, small, buried, purulent. Ears—both drums normal. Nasal sinuses, on transillumination, antra and frontals both clear. Tonsillectomy advised.

*Course and treatment.*—The progress of the case can be divided into four stages: acute, subacute, nutritional consolidation and convalescent.

The first or acute stage is placed from admission, March 13th, until the end of August 1936, and during this time the manifestations of anxiety were very acute, but variably so.

In the most extreme phases it was the general conduct disturbances which bulked largest in the clinical picture. These were present on admission and in relation to menstruation, which was occurring on admission and lasted until March 16th. This was the last appearance of the flow until a year later, but in the interval there were phases when exacerbation of the mental state, as shown by these general conduct disturbances, suggested the existence of moliminal reactions, similar to the menstrual exacerbation shown on admission, in which she was exceedingly restless and agitated. Agitation symptoms, shown by the upper limb, especially included pulling and picking at the mouth particularly the left corner and left lower lip. This became so very severe on some occasions, although it appeared to have an herpetic basis, that she had a sore extending thence to her chin.

She was also constantly running her fingers through her hair, rubbing her hands with a wringing movement, biting her nails to the quicks and her fingers, causing abrasion and bleeding and later ulceration to the deeper tissues, so as to require dressings for some time.

At times restlessness and irritability were manifested by the lower limbs, combined with increased upper limb activity, and she would be wandering round



and round her room or the ward the whole day, unable to sit down, if at all, for more than a few minutes, occasionally displaying much tearfulness.

Other extremes of conduct included filthy habits and masturbation, the latter also pointing to pelvic, moliminal, exacerbations, refusal of food and throwing it about. She nevertheless took food fairly well.

Less extreme manifestations were shown in the continual chattering of her delusions, albeit an incapacity to describe coherently what her trouble was really all about. She now wove into the web of her persecutory ideation the fact that she had been sent into hospital, as further proof of the truth of her assertions of wrong doing on her part. She had done something very wicked, the police were after her, they had already locked her up in hospital, what should she do? She had made a mess of herself, she wanted to confess a great crime, she had wronged her people and fellow employees. She followed staff about to confess and begged them to send for a police officer and hand her over. Moderate manifestations were a sullen, dull but suspicious attitude, uninterested and depressed. Very occasionally, and that only towards the end of this stage, were a few short lived phases of relative brightness when she was sufficiently composed to do a little ward work.

During this stage dental treatment was limited to the extraction of two septic elements, and on June 18th, under general anaesthesia, the septic tonsils were removed by dissection, both were small, fibrotic and purulent. Neither at operation nor subsequently were there any untoward symptoms. Temperature rose to  $99.8^{\circ}$  on 18th and thereafter subsided. Pulse, colour etc. showed no change. She co-operated in after treatment well, was up and about on the 27th, able to do a little light work and took food well but relapse soon occurred and again some remission followed.

In August she had a course of non-specific therapy using Crookes' colsul, five intramuscular injections. Pyrexial reactions were limited to rises to  $101^{\circ}$  F. to  $102^{\circ}$  F., and were rather brief in duration. Pulse did not rise above 104. Menstruation was still in abeyance although she was taking aloes and iron.

Her weight during this time had varied from 8 st. 1 lb. on admission to a lowest 7 st. 6 lbs. and then to 7 st. 7 lbs., and to 8 st. at the end of August.

It was during the latter part of this stage that the better phases were more pronounced. She was able to tell her story better, absurd though it was, there was more coherency and detail in it than formerly and she was able to go out on short leave for a few hours. From April 8th to September 15th she had continuous colon irrigations, 17 sessions, using up to 600 ounces of saline at each session. At first the returns were heavily loaded with mucopus but towards the end the returns were much clearer.

The second or subacute stage is placed from the commencement of September, 1936, until the end of 1936.

During September she had a short course of 5 intravenous injections of T.A.B. vaccine, commencing with 0.025 cc. and rising on the fifth injection to 3 cc. Pyrexias up to  $104^{\circ}$  F. and rigors were obtained. Following this there was a reduction in the intensity of her conduct reactions. She still bit her nails and fingers but was sufficiently composed to permit of leave of absence in the care of her mother and of dental radiography, which disclosed three buried roots of whose presence there was no clinical indication whatever. These together with 5 other teeth, previously conserved but now considered septic, were removed on October 29th. There was no pyrexial or other reaction following this operation.

There was now apparent more definite phases of fairly composed conduct and of less composed, and these latter appear to have been epimenorrhoeic moliminal reactions of irregular incidence.

The more composed phases were correspondingly improved states and it was noted that, especially following dental treatment, she was "very much brighter, rarely now is seen to bite her fingers which are now in good condition."

During the acme of the less composed phases there were, but lasting for a shorter time, exhibitions of her former extreme conduct.

On the whole therefore this stage was that of subacute manifestation and, during it, weight varied between 8 st. and 8 st. 2 lbs. but at the end of December 1936, it rose to 8 st. 5 lbs.

The third stage, that of nutritional enhancement and return of menstruation, is placed from the beginning of the year 1937 till the beginning of November. This stage followed the removal of dental and tonsillar sepsis.



During the winter from October until March she had a series of exposures to ultra violet light.

Weight continued to increase, at the end of January it was 8 st. 6 lbs. and at the end of February it was 8 st. 10 lbs., and this improvement occurring in the period of time, during which, in the preceding year she had so rapidly deteriorated physically and mentally, was an encouraging stimulus to treatment. There were still emotional phases during this time suggestive of moliminal exacerbations, and as during March 19th to 22nd she menstruated, for the first time since that present on admission, accompanied by manifestations of the same extreme emotional conduct, the view as to the former exhibitions being of moliminal causation was confirmed. At the end of March her weight was 9 st. 1 lb. and it was now observed that for a brief space she had regained her normal clean and tidy habits in person, could at times forget her delusions and converse quite cheerfully and with considerable interest upon a variety of topics.

A bacteriological examination of faeces taken on April 14th found no streptococci.

That during the amenorrhoea obtaining during the past year the moliminal manifestations had been epimenorrhoeic was now supported by the fact that the next menstruation appeared on a three weeks' basis, from April 9th to 14th, accompanied by the usual conduct exacerbation reaction. The urine now was still normal.

At the request of the reporter, on April 16th, under general anaesthesia, the thinological surgeon carried out a Watson-Williams' Suction exploration of the nasal sinuses. The posterior walls of the sphenoids were at  $3\frac{1}{2}$  in., the right was haemorrhagic and the membrane thickened whilst the left was clear; both ethmoids were rather haemorrhagic but the antra were clear. Both sphenoids were drained intranasally and argyrol was instilled into all the cavities.

No dramatic change followed this step.

She continued variable in emotional state.

From April 24th to 30th she had a course of prontosil, six intramuscular injections of 5 cc. each. No reaction, pyrexial or otherwise, was noted. On a three weeks' basis menstruation should have, but did not, occur at this time, there was nevertheless a conduct exacerbation manifested. The flow however returned from May 22nd to 24th, and from June 14th to 17th, and from July 5th to 7th and from July 27th to 29th, showing a well-marked succession of three weeks (21 to 22 adys) periodicity and associated with variability in the intellectual and emotional states. She was still deluded, stating that the police were still wanting her but she was more coherent with her tale and more composed on the whole and there seemed now, more than formerly, the possibility that recovery might ensue. However, she refused to admit that she was, or had been, mentally ill or that she should have had treatment for mental illness, for she still insisted that she had done wrong and that she "had only worried because her conscience worried her," she ought to have gone to prison instead of to a hospital. There was, however, much less emotional furor and more self control. At the end of July her weight was 9 st., and her peripheral circulation was improved. During the next two months menstruation occurred from August 20th to 24th and from September 14th for that day only. There was thus appearing elongation of the interval from 21 or 22 days to 24 days.

From September 20th to October 28th she received a course of 18 subcutaneous injections, one every other day, of protamine zinc insulin; commencing with 10 units on the 20th changed to 20 units on the 27th, to 25 units on the 29th and thereafter on every second day 30 units until October 28th. This treatment was preceded and checked during its administration by urine and blood sugar estimations. Urine was normal throughout.

Basal blood sugar estimations were on: September 16th, 87 mgms.; 17th, 83 mgms.; 22nd, 70 mgms.; 24th, 80 mgms.; 27th, 86 mgms.; 29th, 83 mgms.; October 1st, 80 mgms.; 4th, 73 mgms.; 6th, 71 mgms.; 8th, 90 mgms.; November 3rd, 73 mgms.; per 100 cc.

During the treatment glucose solution was given copiously as drinks, every two and four hours, during the periods of possible maximum and minimum action of the retarded insulin.

The effects of this treatment were upon the circulation and the mental state. No effect was noted on the temperature which continued about  $97^{\circ}$  F. to  $97.2^{\circ}$  F., except that at the fourth injection temperature rose to  $98^{\circ}$  F. and remained there for eight hours then falling to  $97^{\circ}$  F. and after the 5th injection it rose briefly to  $98^{\circ}$  F.

On the pulse there was here and there a retarding effect, rarely sustained except towards the end, when, during the last three days rates of 64, 60 and 56 did occur.



Otherwise pulse rates were normal. At the 4th injection a 66 rate was noted on one occasion, but not at the 5th. There was no untoward effect on menstruation, which occurred from October 8th to 10th; the interval of 24 days was being sustained.

In relation to this period there was no exacerbation reaction and similarly in relation to the flow on November 3rd to 6th. The incidence of this last period showed an increasing stability on the part of the menstrual retardation mechanism, for now 26 days intervened between the dates of onset of the last two periods.

The course of retarded insulin had no adverse effect on nutrition; which, during this stage of consolidation, did not fall below 8 st. 10 lbs. at end of July, and at the end of October and November was 8 st. 13 lbs., 12 lbs. above her admission weight. Objectively the most striking change in the progress of the illness occurred in the mental state during the administration of this series of injection and in relation to the 4th and 5th injections, when 20 units were employed. An improvement was observed both by staff and her mother, she was much less irritable. The occurrence of this amelioration at this time was later confirmed by the patient—she felt that she began to feel better. It was from this time that she ceased voluntarily to utter her delusions and especially about the police. Her mother was delighted and insisted that since the onset of the illness she had never seen her so bright and cheerful.

The 4th stage, that of convalescence, is dated from the beginning of November 1937. It was now noted that she was greatly improved and practically every day some detail showed that the improvement was progressive. She no longer displayed phases of agitation and the former listless attitude shown during her more composed times was replaced by alertness, her facial expression was less lined and sullen, a surprising elasticity appeared in her step especially noticeable after the continuous exhibition of a slovenly gait and a drawling dragging step. She displayed unusual initiative in helping in the ward, anticipating things and articles required and work to be done.

The stability of the composure continued, she could concentrate on work, sewing, etc., without, as formerly, having to jump up and leave it. She took pains with her personal appearance and could take a joke without sulking or appearing to do so.

This progress was not interrupted by a mental exacerbation reaction in relation to the menstruation which occurred from November 26th to 29th and leave of absence from hospital on a weekend was now possible. It is to be observed, however, that now the insulin had ceased the interval had fallen to 23 days between the last two periods.

She was discharged to the care of her mother at the latter's urgent solicitation on December 9th, 1937.

At that time she had not for about two months voluntarily expressed her delusions nor manifested agitation. Her fingers and lips were now normal and facial colour had improved on that on admission.

She was, however, still convalescent and whilst she professed to admit that she had been talking much nonsense she was not wholly prepared to admit that she had been mentally ill.

Seen in February and March 1938, progress was sustained and now she could smile at her former troubles. Her mother reported that she had not expressed her delusions and that her conduct was wholly satisfactory. There was no agitation, she helped at home, was composed and contented, sleeping well, appetite good, menstruation regular without exacerbation reaction and her fingers were normal.

*CASE 35.—A case of Oronasopharyngeal Sepsis causing a Confusional Psychosis with Sensory Disturbances and Hallucinations Relapsing after two years without these Sensory and Hallucinatory Disturbances and with no Evidence of Oronasopharyngeal Sepsis but with Evidence of Intestinal Sepsis and a Precedent Dysentery Infection.*

9696 and 10817. A. R., female, single, french polisher, aged 29 on first admission to mental hospital on February 22nd, 1935.

*History.*—Family not psychotic.

She reached standard VII before leaving school at 14. Usual disposition very reserved, steady and a very hard worker. Never slept long, nor soundly, went to bed at midnight and was up again at 6 in the morning.



Had no other interest than her work, never went out, had no friends, never went to cinema. When she had finished factory work at 6 in the evening, she came home and scrubbed the floors, cleaned windows, washed clothes, and in spite of the protests of her father insisted on doing this without any recreation. Six years before she complained of having a "bump on the head" and since this she experienced headaches, became more depressed and reserved. Pronounced mental symptoms were noticed first 6 months before admission.

She developed the idea that people were shooting at her and said she would have them locked up and that she was going to get married to a policeman. The condition grew worse during the last 2 weeks preceding admission. She was continually talking to herself and shouting to imaginary persons about spies; constantly wrote letters to a detective inspector about the spies who were annoying her and, when seen by a medical examiner, asserted that the spies who worked next door to her home watched and shot at her day and night and talked at her preventing her from sleeping. The state of fear had caused her to become uncontrollable.

On admission to mental hospital.

*Physical State.*—Height 5 ft. 2½ in., weight 7 st. 7 lbs. Skin dry and scaly, general nutrition poor; a postural kyphosis; cardiac apex beat slapping; systolic murmur at mitral and pulmonary areas; pulse appeared of low tension, good volume, 74 regular; B.P. 118/80 mm. Hg.; peripheral circulation poor, considerable pallor. Lips blue; tongue furred; pyorrhoea; carious teeth and roots, gum recession. Severe bilateral perimenstrual frontal headaches. Pupils equal, central, both react to light and accommodation. Right eyebrow higher than left. Reflexes normal. Muscular development and tone poor. Some coarse tremor of both hands. Abdomen nil abnormal, except constipation. Last menstrual period on February 10th, normal except for severe headache. Urine, 1030, acid, trace albumen. Blood; Wassermann reaction, negative; Widal test, completely negative to all groups. Gynaecological examination: intact, external genitalia free from infection; rectal examination, uterus retroverted, otherwise nothing abnormal found. Faeces, bacteriological examination, no abnormal organism found. Ophthalmological examination, normal except for refractive errors, glasses prescribed.

*Mental State.*—Depressed and fearful. Suspicious and deluded. Hallucinations of hearing. "The police could not see the spies getting over the garden wall but I can and I can hear them telling lies about me." "Fellows are going to murder me and everywhere I go spies follow me and tell lies about me."

*Progress and Treatment.*—Dental treatment was undertaken in sessions, 27 teeth and roots were extracted, and by the middle of May was completed and an ear, nose and throat examination found:

Larynx, normal. Tonsils, both purulent. Anterior nasal spaces, mucus streaks in right nostril, left clear. Ears, both normal.

Nasal sinuses on transillumination; right antrum and frontal, dark; left antrum and frontal, normal.

At the end of May under general anaesthesia, the tonsils, both septic and adherent were removed by dissection and a general nasal sinus examination, using the Watson-Williams technique, found all sinuses devoid of exudate and with apparently normal membranes.

Mental recovery followed:

A review at the beginning of July found that she had lost the symptoms present on admission, was calm and composed and, with insight, able to discuss her case, recognizing that she had been mentally and physically ill. She was grateful for the steps taken to bring her to normal.

She voluntarily stated that she had been troubled with headaches, having equal bifrontal pains over her eyes which prevented sleep but for which she did not go to the doctor. Those head pains and aches have gone.

For 6 months before admission she heard men's voices, only when recumbent at night and ceasing when she sat up. It was like a shouting in both ears which she thought was by someone she knew, H. H.; bad language and nasty things were said. She now recognizes that these voices were all imagination and that they were based on head noises, which had preceded the "voices," and which developed after



an attack of rheumatism. These noises appeared first in the right ear, then in the left, but always worse in right ear. After the removal of the teeth and tonsils the "voices" and noises ceased. Occasionally she experienced cacosmia, for a month before admission, that has now ceased. Objectively there is now no evidence of sensory disturbances. Menstruation has been regular throughout. She is now sure life is worth living and undertakes not to trouble the police inspector with letters. She recognizes the absurdity of the ideas she formally held and had expressed verbally or in these letters. Conduct has been excellent. Has latterly worked in ward and laundry. Has gained 17 lbs. on admission weight.

Rhinological review showed tonsillectomy complete, nose clean, good result.

She was discharged Recovered on August 8th, 1935, after a month's trial, during which her doctor's the visitor's and her relative's reports were satisfactory.

*Readmission.*—She was readmitted to mental hospital on October 13th, 1937, with a mental illness stated to be of a week's duration, from an observation hospital, where she was found to be restless and noisy, with persecutory delusions directed against detectives and the fire brigade, the latter she asserted stole and burnt her clothes and she demanded that the whole brigade should go to prison.

On admission.

*Physical State.*—Temperature 97.4° F. Anaemia. Weight 7 st. 6 lbs. Poorly nourished. Enlarged cervical and inguinal glands. Cardiac limits normal, rough mitral systolic murmur. Pulse 82, volume and tension poor, peripheral circulation poor, sallow complexion. B.P. 120/85 mm. Hg. Tongue furred. Throat injected. Ears wax. Headaches, cacogeusia but no cacosmia. Muscle tone poor. Some tremor of hands and tongue; urine normal, heavy deposit urates.

Gynaecological, no change from previous admission. Last menstrual period October 6th to October 10th, 1937. Blood, Wassermann reaction negative. Widal test, Dysentery X. 180 and B. Dysentery Y. 90 Oxford units, remainder negative. Faeces, bacteriological examination, streptococcus faecalis, streptococcus saprophyticus and B. Proteus, the latter did not agglutinate with the typhoid-dysentery group of sera. Dental examination. Jaws on inspection and radiography, edentulous. Radiographic examination of chest, negative. Rhinological examination. Anterior and posterior nasal spaces, both clear. Ears, drums normal. Nasal sinuses on transillumination, all clear.

*Mental State.*—Confused, excited, noisy, aggressive and inclined to be impulsive. Repeated persecutory and grandiose delusions uttered incoherently, asserted she had letters and jumpers from royalty.

*Progress and Treatment.*—In view of negative findings on special examination and of anaemic state, but of high dysentery titre, a blood count was done on November 3rd. This found :—

Erythrocytes ...	3,100,000	<i>Differential count—</i>		
Leucocytes ...	21,000	Polymorphonuclears ...		60
Haemoglobin ...	65 per cent.	Lymphocytes ...		26
Colour index ...	1.05	Large mononuclears ...		12
		Eosinophiles ...		1
		Basophiles ...		1

As menstruation occurred from November 2nd to November 6th and might have affected the count it was repeated on November 23rd.

Erythrocytes ...	3,200,000	<i>Differential count—</i>		
Leucocytes ...	19,000	Polymorphonuclears ...		53
Haemoglobin ...	70 per cent.	Lymphocytes ...		35
Colour index ...	1.1	Large mononuclears ...		11
		Eosinophiles ...		1
		Basophiles ...		0

As she continued confused, although calmer, consideration was given, in view of persistence of anaemia, to elimination of any latent nasal sinus disease. Examination on December 10th found no evidence of disease in these areas and following this a course of prontosil was given with a view to its action on bowel infection and thus on the anaemia.

On December 13th streptococcus and haemolyticus and streptococcus saprophyticus were found in the faeces.



From December 14th to 22nd 7 injections of prontosil were given 2 c.c., 3 c.c., 5 c.c., 5 c.c., 5 c.c., 10 c.c., 10 c.c.s. A blood count on January 1st, 1938, found :—

Erythrocytes ...	3,925,000	<i>Differential count—</i>	
Leucocytes ...	14,100	Polymorphonuclears ...	68
Haemoglobin ...	70 per cent.	Lymphocytes ...	24
Colour index ...	.89	Large mononuclears ...	7
		Eosinophiles ...	1
		Basophiles ...	0

On February 1st, streptococci infrequens, saprophyticus, salivarius and cuniculi with B. Friedlander were found in the stools.

A blood count on February 2nd found :—

Erythrocytes ...	4,200,000	<i>Differential count—</i>	
Leucocytes ...	8,000	Polymorphonuclears ...	55
Haemoglobin ...	78 per cent.	Lymphocytes ...	31
Colour index ...	.93	Large mononuclears ...	12
		Eosinophiles ...	2
		Basophiles ...	0

Her weight had increased 1½ stones on her admission weight.

A second course of 10 injections of prontosil was given from February 12th to 22nd, using 10 c.c.s. dose on each occasion and a blood count on March 2nd found :—

Erythrocytes ...	4,250,000	<i>Differential count—</i>	
Leucocytes ...	8,700	Polymorphonuclears ...	58
Haemoglobin ...	80 per cent.	Lymphocytes ...	29
Colour index ...	.94	Large mononuclears ...	10
Methaemoglobin absent.		Eosinophiles ...	2
		Basophiles ...	1

At this time 5 sessions of colon irrigation gave clear returns, but whilst on one occasion bacteriological examination of the faeces found no streptococci, yet they were found present on other occasions.

Nevertheless, coincident with the clear colonic returns and the improvement in the blood count there was an improvement in the mental state, the confusion cleared and she was able to do light work.

On March 11th a Widal test still found no agglutination to usual groups except to dysentery organisms and here the titre was to B. Dysentery X, 50 and B. Dysentery Y, 70 Oxford units.

On March 21st these figures were B. Dysentery X, 25 and B. Dysentery Y, 90 Oxford units.

At the end of March her weight was 9 st. 10 lbs.

On April 5th a blood count was taken :—

Erythrocytes ...	4,400,000	<i>Differential count—</i>	
Leucocytes ...	9,000	Polymorphonuclears ...	68 per cent.
Haemoglobin ...	90 per cent.	Lymphocytes ...	24 per cent.
Colour index ...	1.02	Large mononuclears ...	6 per cent.
		Eosinophiles ...	1
		Basophiles ...	1

A Widal test of the blood on April 7th found for the dysentery organisms B. Dysentery X, 50, B. Dysentery Y, 50 Oxford units, and a bacteriological examination of faeces taken on the same date found no abnormal organisms. Blood pressure was 130/90 mm. Hg.

A review at the commencement of April found that she was normally orientated and able to discuss her case with intelligent appreciation and insight. She recognized she had been mentally ill and depressed but life was now worth living. She remembered that on her previous admission she had been troubled with "voices" but that on this occasion she had not been so troubled. Similarly she had not suffered with the severe headaches on this occasion that she had on the former. She had had only premenstrual headaches after discharge from mental hospital.

She is unable to explain how the present illness developed other than that she had a "cold," went to her doctor who gave her a bottle of medicine for a "cold." The cold improved but "something came over her and made her muddleheaded and she began to imagine things." She had had no trouble arising from food, had had no bowel disturbance. The "cold" was the only unusual event. Now she is brisk, alert, cheerful, contented and composed, working well and wholly trustworthy and willing.

She was discharged to the care of her people on April 7th, 1938.



CASE 36.—*A case of Sphenoidal Sinus Disease with a Manic-depressive Reaction Corresponding to Seasonal Variation.*

10727. J. F. P., married, male, shop assistant, aged 44 on first admission to mental hospital on July 15th, 1937.

*History.*—Family: Great uncle spent a period in a mental hospital, 20 years ago; father had a "temper." No tuberculosis.

Personal: Left school at 14 in Standard VI and became a baker's vanman, baker, shop assistant and served in Army 1916–1919. Usually when well, cheerful and sociable but unsettled occasionally. Married 21 years, 2 children dead, 2 living, youngest 6 years.

His wife stated that for 20 years she has seen him gradually deteriorate. He has been troubled with influenza, headaches and pains and backaches; but almost every summer he has shown conduct changes towards the end of April, becoming abnormally elevated, unreasonable and restless in May. A state of futility appeared passing on to irritability and anger and violence in the hot weather whilst in winter he has been depressed. Associated with these exalted symptoms he has had loss of appetite, sleeplessness, headache and loss of weight.

He has had unreasonable ideas, ungrounded suspicions, that everyone is against him, becoming delusions. An imaginary voice has appeared. He has threatened suicide and said that if he had the courage he would end his life. He has threatened and attempted violence to his wife and threatened that the next time he struck her he would kill her. He was continually changing his clothes, wearing several of each garment. He acted on unreasonable impulses. Very destructive; unable to concentrate; sometimes ate ravenously, mixing foods wrongly; clipped all the hair off his head, these were some of his conduct manifestations.

He troubled and grieved over the loss of the children and especially the one who was fatally injured by motor car when going to school. The emotional disturbance on this account continued and led up to an uncontrollable state necessitating admission to a hospital where he became more composed but exhibited a simple, rather facile manner with inconsequent remarks, expressing various ridiculous ideas, e.g., he said patients should not be nursed in iron bedsteads as the springs absorb wireless waves and this electricity is deleterious to health, he himself, he said, had felt the bad influence and declared that after sleeping on the floor at home he had felt the better for it. He frequently talked about the effects of electricity, was always interrupting other conversations with views of Bible teaching, asserting that he could aid others by the Lord's teaching. He showed an abnormal curiosity into other peoples' property and other trifles.

His wife knew that he had had headaches for many years but did not know on which side they had been more pronounced.

On admission to mental hospital: he appeared to suffer from auditory hallucinations and was restless and garrulous, rambling in his answer to questions. He was deluded that certain types of drinking vessels poisoned him. He stated that he had "brainstorms" during which he wanted to throw things about. Apparently in fair physical health, his few remaining teeth were in a septic state.

The Wassermann reaction in the blood and cerebrospinal fluid was negative, the latter was under increased pressure.

Previously to the extraction of 5 remaining teeth he had shown no improvement, continuing excitable and chattering nonsense, but a fortnight after becoming edentulous some improvement was noted in the mental state and he was able to concentrate better and thus do a little work.

An investigation of the nasal sinuses by the Watson-Williams' technique of suction exploration found all sinuses to be clear except the right sphenoid, which contained flakes of pus, and on draining it intranasally a small polypus was removed. A week later both small buried purulent tonsils were removed by dissection.

A month later he was noted to be well behaved, clean and tidy and working well.

From December 4th to 12th he received 5 intramuscular injections of Colsul,  $\frac{1}{2}$  c.c. rising by  $\frac{1}{2}$  c.c. to  $2\frac{1}{2}$  c.c. Pyrexias of  $103.2^{\circ}$  F. were obtained on 3, and  $103.8^{\circ}$  F. and  $102.6^{\circ}$  F. on the remaining occasions. Colon irrigations which had been variable in their returns previously now in January, 1938, gave a fairly clear return.

He was by now much improved, cheerful, happy, contented, able to converse, admitted having heard "voices" previously, but now stated these had ceased.

In February he was working outside. He had previously adopted an unpleasant attitude towards his wife, upbraiding and threatening her as the cause of his



detention, but this attitude has now ceased and in March he went out on leave of absence, behaving correctly. He was now a pleasant, sociable and very willing worker both in the ward and in grounds.

A review of this case early in April found him to be cheerful, calm, composed, contented, replying succinctly, relevantly and with alacrity to questions and not intruding nonsense into conversation but talking sensibly and quite credibly, taking reasonable time to consider points before replying.

Normally orientated he now had insight, recognizing his illness to have been mental and physical, he was grateful for the treatment he had received. He recognized that he had been in a confused state for some time before admission. He knew his teeth were in a bad state but had not had them attended to, although he had had discomfort there. He was sure that he had slept better since tonsillectomy. He had been troubled with headaches—"a rheumatism of the head"—, worse on right side, which varied in intensity, coming and going. Had had these headaches and pains following influenza in 1918 and three subsequent attacks of influenza, these were made worse by change of weather and on a damp cold day he was always depressed. The headache was principally a dull frontal ache.

In relation to the present illness he feels he was specially disturbed by the death of his child in the motor accident. After that he became unable to concentrate. Conduct was now, in hospital and whilst on leave, wholly satisfactory. He worked outdoors, was reliable and trustworthy. He had gained weight from 8 st. 9½ lbs. to 10 st. 6 lbs. He was discharged to the care of his wife on April 7th, 1938.

CASE 37.—*A case of Lactational Psychosis with Evidence of Bowel Sepsis Ceasing after Prontosil and Psychosis after Treatment of Oropharyngeal Sepsis.*

10846. L.M.H., housewife, married, aged 29 on first admission to mental hospital on November 2nd, 1937.

*History.*—Family not psychotic. She left school at 14 in 5th standard, worked in a grindery and then took up office cleaning until her confinement.

She had been married 5 years, had had 4 pregnancies, 1 child was still born, 1 died in November 1935, 2 children now alive, youngest aged 6 months which she had breast fed. During the latter part of that time she had become sleepless and mental symptoms appeared 3 weeks prior to admission, becoming worse a fortnight later. She worried over the house, said someone had hanged himself in the pantry and someone else had gone mad there, the neighbours were talking about her, later she became uncontrollable and on admission to a hospital she was restless and noisy, sat up in bed shouting and singing at the top of her voice, said an aeroplane visited her during the night and she could hear bombs going off. Resistive to nursing, attacked staff. Transferred to mental hospital.

*On admission to Mental Hospital. Physical state.*—Very pale. Temperature 96·8° F., pulse 74, respirations 20. B.P. 138/102 mm. Hg. Breasts lactating. Tongue furred. Gums inflamed, some doubtful septic teeth. Ears wax. Pharynx and fauces infected. Bad tastes and bad smells. Headaches. Some tremor of hands. Flabby muscles. Very constipated. Vaginal walls healthy but parturient tears and erosion on cervix. Corpus uteri well involuted and in good position. Blood: Wassermann reaction negative. Widal test: all negative except for B. Dys. Y. 35 Oxford units.

*Mental state.*—Confusion, depression, apathetic, suspicious, latent period much increased, muttering speech. Completely disorientated, no volition, resistive, judgment and insight in abeyance, said electricity pushes her pillow about. Restless, impulsive. Auditory hallucinations, hears voices swearing and telling lies about her; visual, sees a blackbird.

*Progress and Treatment.*—On evening of November 7th temperature rose and continued to do so, next day to 104° F. maximum and then falling on 9th to 102·8° F. to 102° F. to normal then rising on 10th to 100·2° F. and then falling and keeping normal between 97° F. to 98° F. The pulse maximum with this was 108, 104 etc. Respirations were not increased. It was elicited she felt pain in back and limbs and a sore throat. There was an acute tonsillitis. Swab examined bacteriologically found staphylococci, streptococci, large Gram positive diplococci but no evidence of B. Diphtheriae. With general medicinal and local palliative treatment the acute symptoms subsided. At this time she appeared to be unable to pass urine in spite of diuretic treatment and a catheter was passed. Urine by



catheter was normal but bacteriologically contained *B. Proteus*. After further medicinal treatment the apparent dysuria subsided. A bacteriological examination of faeces on November 15th found streptococcus anhaemolyticus and streptococcus faecalis. Gynaecological condition was treated with Dettol douches and pessaries thrice weekly.

A blood count on November 23rd found :

Erythrocytes ...	3,700,000	<i>Differential count—</i>	
Leucocytes ...	12,500	Polymorphonuclears ...	66 per cent.
Haemoglobin ...	73 per cent.	Lymphocytes ...	23 per cent.
Colour index ...	.99	Large mononuclears ...	9 per cent.
		Eosinophiles ...	1 per cent.
		Basophiles ...	1 per cent.

At a session of continuous colon irrigation on November 24th the returns were observed to be fairly clear. Some mental amelioration, after what appeared to be a moliminal mental reaction, followed this irrigation.

On November 25th, dental inspection, the dental surgeon was in favour of dental conservation, and having regard to bacteriological findings elsewhere, it was decided to treat with prontosil. It was given in 8 intramuscular injections from 25th to December 10th, 2 cc., 3 cc., 5 cc. and 10 cc. doses being given. There was no pyrexial or other reaction.

On December 10th an ear nose and throat inspection found : nasal passages. Posterior rhinoscopy—not seen. Anterior rhinoscopy—oedema of both middle and both inferior turbinates. Ears, both drums retracted and scarred posteriorly, left greatly thickened. Co-operation with transillumination of nasal sinuses was lacking.

Tonsils were infantile hypertrophic and septic on both sides.

The conditions found in the nose and tonsils were considered justifiable to treat radically.

A bacteriological examination of faeces taken on December 13th found no abnormal organisms, there were no streptococci, and on similar investigations on December 29th and January 12th resulted in similar findings. During this time, at sessions of colon irrigation, the returns had still been observed as free from mucopus, the mental state was, however, still very variable. On January 1st a blood count found :

Erythrocytes ...	4,300,000	<i>Differential count—</i>	
Leucocytes ...	15,800	Polymorphonuclears ...	53 per cent.
Haemoglobin ...	80 per cent.	Lymphocytes ...	43 per cent.
Colour index ...	.93 per cent.	Large mononuclears ...	3 per cent.
		Eosinophiles ...	1 per cent.
		Basophiles ...	0 per cent.

During November and December menses were in abeyance, but appeared from January 2nd to 6th, with exacerbation of mental symptoms to a noisy and quarrelsome conduct before and during, but a more amiable state afterwards.

On January 6th the dental surgeon considered that conservation could no longer be extended to two of the doubtful teeth, and these were extracted.

On January 14th, under general anaesthesia, the tonsils were removed by dissection, both were adherent and contained pus. A general nasal sinus examination found all the cavities devoid of exudate but they were irrigated with antiseptic and argyrol instilled. This was followed by two injections of prontosil and later she was given a course of colsulanyde, one powder three times a day for a fortnight.

On February 22nd bacteriological examination of faeces was still negative.

On February 24th the dental surgeon considered it advisable to remove another infected but conserved tooth.

At the end of February she was well orientated with insight, recognizing she had been ill mentally and physically and was now much better than on admission. Her memory of admission was vague but life was now worth living and she was feeling happier. She has no memory of the acute phases of her illness, after leaving home, but she recognizes that she has been very confused and talked much nonsense.

She remembers suckling the baby for six months, she was well in August, then about 3 weeks before admission to hospital there developed depression and head noises, crackling sounds like electricity, in the left ear only. After that she remembers very little.



She has felt specially better since tonsillectomy, has a better appetite, has not felt so sick in the morning and has slept better. Objectively, is now composed, exhibits a normal sense of humour in contrast to the stolid sullen state on admission and the futile giggling state shown before removal of tonsils. She has regained volition but there is a lack of energy and alacrity. B.P. is 130/95 mm. Hg. Facial colour is better than on admission.

During the early part of March she improved further and went out on leave of absence and on March 12th discharged herself.

CASE 38.—*A case of Lactational Psychosis following Scarlet Fever treated by Prontosil.*

F. 1820. D. E. H., married, housewife, aged 38 on first admission to mental hospital on January 7th, 1938.

*History.*—Family not psychotic.

She had had scarlet fever after confinement, and after four months lactation developed a state of confusion with depression and agitation, complaining of nasty smells and “tastes of blood from sacrifice, from the blood of the Lamb.” Black spirits were around her, to whom she appeared to talk, and, she said, told her to get out of bed.

On admission to mental hospital the Wassermann reaction in the blood was negative and the Widal test was negative, except for B. Dysentery X, 180 and B. Dysentery Y, 90 Oxford Units. There was pus in both tonsils but no other clinical evidence of disease in the nose and ears.

Two diseased teeth were extracted from the right upper molar region and gynaecological sepsis was treated locally. A course of prontosil injections was given. The confusion, depression and sensory disturbances, whether perceived in hallucination or normally, cleared, associated with general physical improvement, including a rise in weight from 9 st. 7 lbs. to 10 st. 3 lbs.

On admission there had been an elevation of the left and a depression of the right eyebrow together with a right internal strabismus, all these had now ceased and the facial aspect was symmetrical.

She had insight into her illness, was able to discuss her case, and expressed appropriate appreciation for her treatment.

She said she now felt better than she had done for 10 years, largely because, she thought, an old phlebitis of the leg was in a better state than it had been for 10 years, and also because for 10 years she had had headaches with her periods but the last two periods, occurring after cessation of lactational amenorrhoea, had been free from headaches. She has not now, but on admission she had, double vision which had appeared after the birth of the baby. Six years before she had a nervous breakdown and then had seen double until recovery from the breakdown.

She had been on leave of absence from hospital satisfactorily.

She was discharged recovered on April 7th, 1938, at which time a Widal test of the blood for dysentery organisms gave B. Dysentery X, 90 and B. Dysentery Y, 35 Oxford Units.

CASE 39.—*A case of Psychosis of Pregnancy and Puerperium with Impulsive Oculoclastic Conduct Necessitating Removal of Eyeball. On Investigation Anomalous Indications of Nasal Sinus Disease found but its Treatment Complicated by Anatomical Abnormality.*

(W. G.) F. R. S., housewife, aged 33 on first admission to mental hospital on March 30th, 1937.

*Family History.*—Nothing abnormal was known of her grandparents. Parents, non-drinkers, were not related before marriage and are healthy. Her father was 33 when she was born, her mother 31. There is a vague history of tuberculosis on her father's side but no near relatives were affected. A maternal aunt was in another mental hospital. She has 2 sisters, aged 30 and 26, and a brother aged 28—all healthy. One sister died of meningitis aged 2, and 1 died of (?) tuberculosis aged 18.

Her childhood was normal except for skin eruptions. She was a very intelligent child, very sociable and had many interests. On leaving school, aged 15, she was in a millinery and drapery business, till her marriage at 26, and gave music lessons and did much church and social work. She did not drink alcohol and



rarely smoked. She had no illnesses, except German measles in 1935, but has had skin eruptions since then. She has usually severe constipation. She married 7 years before admission to mental hospital and had 2 children, aged 5 and 3. Pregnancies were normal and labours easy. There was no history of any miscarriage. She was very fond of children. In November, 1936, present condition started gradually. She worried over finance without adequate cause. She accused her husband of losing his affection for her and being cruel, apparently also without cause. She lost interest in him and her friends though she retained interest in her children. She read the Bible all day long and said terrible things would happen at Easter and at times she was very depressed. She carried on with her housework till a short time before admission though at times she was confused. She slept poorly, her appetite was poor and she lost weight.

On admission she was very depressed, apprehensive and emotional. She admitted having auditory hallucinations such as "voices" reproaching her for wrong-doings and God's voice telling her what to do. Sometimes she doubted if they were real. She had queer feelings in her body such as stiffness, feelings of food passing through her without her having an inside and unreality sensations. She could not remember what had happened immediately before admission when she was said to be extremely restless, resistive, screaming and stripping herself and refusing food.

She weighed 8 st. 6 $\frac{3}{4}$  lbs. She was about 18 weeks pregnant. Her temperature was normal though it was stated to be raised before admission. She had slight albuminuria, which cleared up, and she had glycosuria, which has remained constant practically since then. In the blood the Wassermann reaction was negative and a Widal test gave B. Dysentery X, 250 Oxford units, rest negative. She had one carious tooth, 2nd left lower premolar, with slight pyorrhoea around it. She had mucous streaks in both nostrils and extensive mucopus in the post nasal spaces. On transillumination the right antrum was black, the left was clear. Both frontals were clear. Tonsils were adherent with liquid pus both sides. Her fasting blood sugar was 117 mgms. per 100 c.c.s., rising to 140 one hour after ingestion of 100 grammes of glucose and falling to 73 within two hours.

The carious tooth was extracted on April 20th, 1937. She was given alkaline diuretic mixtures and iron tonics.

About the middle of April she showed improvement. She slept well and had a good appetite. She was quiet and well-behaved and showed interest and did knitting, but she continued to have periods of depression and was rather emotional. She still expressed feelings of unreality and delusions about having no bowels.

In June the periods of depression were slight and she was allowed leave of absence from hospital, which she greatly enjoyed. She was extremely affectionate to her children and regained confidence in her husband. She denied having hallucinations and stated that she had totally lost the feelings of unreality and realized the delusionary nature of the statements she had made. She had a short period of depression in early July and on August 7th, 1937, was discharged at the earnest solicitation of the husband and the patient, in order that the child should be born at home. Her child, a healthy boy, was born on August 8th, 1937, after a normal labour. She remained well for five days, and then became very depressed, lost her appetite and slept poorly. She lost interest in the new born but was still affectionate to husband and other children. She soon became restless, noisy and extremely deluded. She was readmitted to mental hospital on August 15th, 1937, when it was found that her voluntary attention was very poor, she was correctly orientated but was very restless, noisy and said she was dead, that she could never die and would have to be burned, that she had no inside. The uterus was subinvolved and retroverted with a bloodstained and slightly offensive discharge which persisted for about 10 days. Temperature 99°. She was given douches and a Hodge inserted. Glycosuria was present.

In a few weeks she was much quieter and brighter and slept and ate well but remained very deluded.

On the night of September 22nd she became very emotional and depressed. Next morning she seemed a little better but suddenly put finger behind external rectus of left eye and burst the globe. She said she had sinned and was obeying the instruction "If thine eye offend thee, pluck it out." The avulsed eye was removed by operation. She continued to be extremely resistive, violent, depressed and agitated for the following month. A course of Soneryl suppositories was given from September 26th to October 11th and she became quiet, slept and ate well and, as a rule, gave no trouble though at times she had brief periods of agitation and restlessness. Delusions of sin and coming danger were present throughout.



On November 1st, 1937, under general anaesthesia, tonsillectomy was performed, both tonsils contained pus. On general nasal sinus examination by Watson-Williams' suction exploration there were found:—flakes of pus in right ethmoid and copious thick pus in the left antrum. An intranasal antrostomy was carried out and argyrol 10 per cent. was instilled into all sinuses.

During November and early December she was, on the whole, quieter but continued to have periods of agitation and resistiveness. The left antrum was washed out daily—copious pus being removed. A radiogram on January 1st, 1938, showed opacity of right antrum, the left being clear though walls were thick.

On January 24th, 1938, radical Caldwell Luc operation on the left antrum was performed, the cavity was found to be full of pus and there was a thick polypoid membrane, this was sent for section. A shelf divided the antrum into two cavities, this was broken down and full drainage established. The right antrum was clear.

Report on polypoid membrane-hypertrophied, sub-epithelial tissue, highly vascular and covered with columnar ciliated epithelium, containing a few crypts. Tissue contains a number of eosinophils. Actual organisms were not detected. There is a considerable amount of desquamation of the epithelium.

The left antrum was washed out, twice a day, for a month, then once a day till April. The discharge of pus continued profuse and a swab was taken for bacteriological examination.

Report of pus from left antrum February 3rd, 1938—large gram positive diplococci.

February 8th, 1938—*Blood sugar.*

Fasting 100 mgms. per 100 c.c.

$\frac{1}{2}$  hour after glucose = 150.

1 " " " = 210.

2 hours " " = 116.

Following operation in January she was very depressed and deluded. Occasionally she was excitable and resistive and very agitated. In February she became bright, cheerful and occupied herself with sewing and knitting but retained delusions. On the 14th the special nurse was removed—the patient had begged for her to be removed repeatedly. A week later became very agitated and uncertain and special nurse was again needed. She was fitted with artificial eye. She complained of poor long distance vision and was given glasses to wear regularly.

March 26th, 1938, X-ray of teeth showed stump of lower second bicuspid. X-ray of sinuses—both antra show a honeycomb appearance suggesting chronic mucoperiosteal thickening. Right antrum still shows a slightly greater degree of haziness than left. Other sinuses clear. Frontals very large.

April 4th, 1938, antrum wash-outs now clear and treatment discontinued.

At present she is clean, tidy and does knitting and sewing, reading and plays piano. She is bright, cheerful, sociable and converses readily. Her memory is good. Her attention is easily held. She remains acutely deluded and hallucinated—she says she sees falling stars and the sun is coming nearer the earth every day and getting hotter and the end of the world is coming. She says she ought to be dead now as she was "called" long ago but she would not attempt to kill herself as she must die a natural death and she no longer gets the impulse to harm herself. She is conscious of emotional apathy, saying that her smiles are not happy ones and that she doesn't feel acute depression either or proper affection towards her relatives.

## II.—FROM THE CARDIFF CITY MENTAL HOSPITAL.

*General Report.*—By Dr. T. J. HENNELLY, D.P.M., Medical Superintendent.

### *Choline Metabolism.*

Dr. Quastel, together with Dr. Mann and Dr. Tennenbaum, have continued an enquiry into the mechanism of formation of acetylcholine in the central nervous system. They had previously shown that brain cortex slices, when immersed in an oxygenated glucose-Ringer medium, liberate free acetylcholine—a substance now known to be primarily responsible for the transmission of impulses in the nervous system. Dr. Quastel and his colleagues have now shewn that the free acetylcholine is derived from a complex compound present only, so far as is known at present, in the nervous system.



This compound, termed acetylcholine precursor, is synthesized *in vitro* when brain cortex slices are allowed to respire in an oxygenated medium containing glucose, or sodium lactate or sodium pyruvate. The precursor breaks down to free acetylcholine under acid conditions. At neutrality it is relatively stable. The precursor is pharmacologically inactive and represents a store in the nervous system from which free acetylcholine may be derived under suitable metabolic conditions. It is built up from choline, from a substance probably formed in the brain during the combustion of glucose, and from a third substance which is a normal tissue constituent, probably a specific protein. The latter substance acts as though it were an enzyme catalyzing the formation of acetylcholine. For further details the original paper should be consulted.

*Biochem. J.*, 1938, 32.

Further work on choline metabolism has been carried out by Dr. Mann and Dr. Quastel who have shewn that a specific enzyme, choline oxidase, exists in the liver but not in the brain, which oxidizes choline to betaine aldehyde. The latter substance was isolated and identified.

Choline oxidase will not oxidise alcohols or amino acids and appears to be specific in its action to choline. It will, however, attack arsenocholine, i.e. choline in which the nitrogen atom has been replaced by arsenic. This new enzyme has interesting properties, details of which may be found in the original publication.

*Biochem. J.*, 1937, 31, 869.

#### *Morphine-Acetylcholine Antagonism.*

Dr. Quastel and Dr. Tennenbaum have shewn that the effects of acetylcholine on the eserinizied leech preparation may be antagonized by morphine and its derivatives. The inhibition due to morphine is reversible, and an approximately constant ratio exists between various amounts of morphine and the minimum quantities of acetylcholine necessary to give a contraction of the leech muscle in presence of them. Heroin, codeine and dionine behave similarly to morphine, heroin being a more powerful antagonist of acetylcholine than morphine and codeine, and dionine less powerful. Apomorphine is inactive as an inhibitor and so are narcotine, papaverine and cotarnine.

*J. Pharmacol. and Exp. Therap.*, 1937, 60, 228.

#### *Narcotics and Tissue Oxidation.*

The work of Dr. Jowett and Dr. Quastel, shewing that narcotics inhibit carbohydrate oxidation in the brain and that the ionic environment plays an important part in determining the extent and type of inhibition, has now been extended by Dr. Jowett to a variety of narcotics used at their anæsthetic concentrations. Dr. Jowett has shewn, in confirmation of the preliminary work of Drs. Jowett and Quastel, that narcotics such as urethane, chloral, luminal, evipan, chloretone, avertin and magnesium ions inhibit the oxidation of glucose by brain cortex by amounts varying from 6 per cent. to 32 per cent. at concentrations of the same order as those which produce general narcosis in the intact animal. Inhibition of glucose oxidation may, therefore, be the cause of the narcosis. Alcohol and ether inhibit respirations of brain, progressively and probably irreversibly, differing in this way from the narcotics mentioned above, which quickly arrive at an equilibrium and whose effects are reversible. The anaesthetic concentrations of alcohol and ether are simply threshold values for respiratory inhibitions.

*Biochem. J.*, 1937, 31, 565 and 1101.

*J. Physiology*, 1938.

#### *Amine Oxidation by Brain and other tissues.*

Dr. Pugh and Dr. Quastel have continued their investigation of the manner in which basic amines, known to be inhibitory to respiration in the brain, are



detoxicated in the body. They have shewn that there exists in the liver, kidney and brain a specific enzyme, which they have termed amine oxidase, which attacks amines such as tyramine, indolethylamine, isoamylamine, all of which are known to have a toxic action on the nervous system. Amine oxidase will combine with ephedrine, benzedrine, mescaline, etc. Amines when brought together compete with each other for the amine oxidase with the result, for example, that benzedrine will inhibit the oxidation of so toxic an amine as tyramine by liver or by brain. Benzedrine is not itself oxidized at an appreciable rate. The question has now arisen as to whether the clinical effects of, say, benzedrine are due to the effects of the molecule itself on the nervous system or to its ability to inhibit the detoxication of some other, more toxic, amine normally produced in the body. Dr. Pugh and Dr. Quastel have studied in detail the manner of breakdown of amines by the liver and have isolated intermediate products. Details will be found in their papers.

*Biochem. J.*, 1937, 31, 286 and 2306.

*Trypanocidal Activity of the Cerebro-spinal Fluid.—Second series.*

Research work on the trypanocidal activity of the cerebro-spinal fluid has been continued by Drs. Hawking, Hennelly and Wales. In a previous paper (Hawking, Hennelly and Quastel: *J. Pharm. and Exper. Therap.*, **59**, 157, 1937) a new technique was described for investigating the penetration of an arsenical compound into the cerebro-spinal fluid. The trypanocidal power of the compound *in vitro* (using strains of *T. Rhodesiense*) was measured as an indication of the probable therapeutic efficacy, and a chemical estimation was made to shew the total amount of arsenic present. By this means it was shown that after the intravenous administration of tryparsamide or orsanine, the cerebro-spinal fluid possessed considerable trypanocidal activity; while, after the administration of other pentavalent compounds, or of trivalent compounds, such as neoarsphenamine, the activity was small or absent. There was no relationship between the extent of the trypanocidal activity and the total arsenic content of the fluid. These results are found to accord with the therapeutic efficiency of these compounds in neurosyphilis and sleeping sickness.

The present work describes investigations of further arsenic compounds by the same method. A series of cases were also examined after the administration of the antimonial compound, neostibosan. In the second series of experiments it was found, contrary to what was previously stated, that the cerebro-spinal fluid of a few individuals possesses trypanocidal activity in virtue of its own essential constituents. Such activity, however, can be easily distinguished from that due to the administration of an arsenical compound by the fact that trypanocidal activity due to arsenicals is slow, requiring about 12 to 20 hours for its full development, whereas spontaneous trypanocidal activity is more rapid. The minimum trypanocidal concentration observed 24 hours after arsenic is 4 to 8 times as great as that observed after only 6 hours; the minimum spontaneous trypanocidal concentration after 24 hours is no greater than that observed after 6 hours. The rate of trypanocidal action, as shown by comparison of the readings at 6 hours and at 24 hours respectively is sufficient in itself to distinguish between the two types of action. The presence of occasional spontaneous trypanocidal activity does not appear to be associated with any special increase in the amount of the cerebro-spinal fluid globulin or cells, and does not specially concern the investigations except as a fallacy easy to detect and exclude. As trypanocidal activity is not always parallel to spirochaeticidal activity, determinations were also made on the spirochaetes of relapsing fever, a laboratory strain of *Sp. Obermeieri* being used.

Of the compounds tested during the past year, only one afforded equivocal evidence of activity approaching that of tryparsamide. This was preparation



As 190, chemically the sodium salt of 3-amino-4 (beta-hydroxy-ethoxy)-phenyl arsonic acid, prepared by Messrs. Parke Davis and Co. None other has yet been found equal or superior to tryparsamide or orsanine. These investigations are of considerable value, in that they afford a ready means of testing out rapidly various organic arsenic compounds and assessing their probable therapeutic efficiency in the treatment of neurosyphilis.

*J. Pharm. and Exper. Therap.*, 1938.

#### *Therapeutic Trials.*

At the request of the Medical Research Council, an investigation was undertaken by Dr. Wales of the clinical effects of neocryl in cases of general paresis. Prior to the request, neocryl, a pentavalent arsenic compound,  $\text{NaO.HO.OAs} \langle \text{---} \rangle \text{NH.Co.}(\text{CH}_2)_2\text{Co.NHCH}_3$ —Sodium succinanilo-methylamide-p-arsonate, had been studied biologically at Cardiff by Hawking, Hennelly and Quastel and found to have no appreciable trypanocidal activity in the cerebrospinal fluid. The compound was found to reach the brain (average =  $0.3\gamma$  As per ml.), but failed to be reduced or to be converted into a trypanocidally active condition. It was then stated "the final estimate of the value of neocryl clearly will depend on clinical experience, but the results indicate that there is little probability of it proving equal or superior to tryparsamide or orsanine in the treatment of syphilis or trypanosomiasis of the central nervous system." This statement was confirmed, for, while no evidence was found that the drug was more toxic in therapeutic doses than tryparsamide, the clinical results were so disappointing that the investigation was abandoned.

#### *Tuberculin Tests.*

During the year, a survey was made of the tuberculin sensitivity of psychotic patients by Dr. Davies. This investigation was done mainly on the female side where every patient was tested by the Mantoux intracutaneous method. It was observed that, on the whole, the incidence of positive reactions was greater than in the general population and, furthermore, that this increased sensitivity was particularly referable to the Schizophrenic group of patients.

Sixty-six female patients also received tuberculin subcutaneously in graded doses, and local and general reactions were noted. The chests of those patients who proved to be positive were also X-rayed.

It was noticed in this group, too, that the praecox patient was, on the average, much more allergic than the non-Schizophrenic patient.

Under the direction of the Burroughes Wellcome Research Laboratories (who kindly supplied the materials) skin tests were carried out on a number of patients to determine the potency of the Seibert-Long tuberculo-protein as compared with old tuberculin. It was found that there was little to choose between these two preparations in determining the presence of tuberculin allergy, but on the other hand the reactions to the tuberculo-protein were observed to develop more rapidly and to be rather more intense than those with the old tuberculin.

The details of this work will be published in the near future.

#### *Treatment.*

In addition to the routine treatments enumerated below, cardiazol and insulin therapy were instituted during 1937, and already a considerable number of schizophrenics have been given cardiazol, some with very promising immediate results. Dr. Phillips has been appointed as an additional medical officer in charge of the insulin unit. Drs. Davies and Wales are in charge of cardiazol treatment on the female and male sides respectively and concurrently with the treatment they have been investigating the blood sugars of the



patients before, during, and immediately after the fits. Their results, so far, in 187 estimations, do not confirm suggestions recently made that the seizures are due to a sudden lowering of blood sugar.

One patient receiving cardiazol repeatedly had a pulse-rate of 35-50 after the injection, followed by an interval of several hours before it returned to his previously normal rate of 70-75.

Electrocardiographic studies showed that the slowing was due to overaction of the vagus and could be abolished by giving atropine before giving the cardiazol. This was successfully done on each occasion thereafter that he received this treatment.

The routine treatments given were prolonged somnifaine narcosis to 83 cases, making a grand total of nearly 400 cases treated by this method in the past 6 years; malarial treatment to 24 cases, and pyrifer and sulphur treatment to 34 cases. Hydrotherapy, electrotherapy and occupational therapy are extensively employed and an average of 83 per cent. of all patients are engaged through the year in occupational therapy of one form or another.

#### *Educational.*

The usual undergraduate (to students of the Welsh National School of Medicine) and post-graduate lectures and clinical demonstrations were given in the hospital during the year. Much interesting clinical material is always found to be available at the psychiatric out-patients clinic held twice weekly in the Cardiff Royal Infirmary and is useful for undergraduate teaching. The number of new cases who presented themselves at the clinic during the year was 279. There were 1,429 attendances.

#### *Staff Conferences.*

The Clinical and Biochemical Staff Conferences continue to be well attended. The discussions are found to be of great advantage to medical officers in the diagnosis and treatment of all new patients, and it is at these conferences that suggestions for future treatment and research are discussed and criticized.

#### *Animal Experiments.*

The necessary experimental work on animals (rats and guinea-pigs) was continued throughout the year. Home Office licences are held by Drs. Scholberg, Davies and Quastel.

#### *Pathological Routine Work.*

The following examinations were made :—

*Urine* : ordinary routine, 1,386; microscopical, 102; bacteriological, 18; urea concentrations, 17; single urea estimations, 2; urobilin, 8; isolated sugar estimations, 6; tests for s. gr., albumin, sugar, ketones (in connection with prolonged narcosis), 717; ferric chloride tests, 150; creatinine estimations, 18. *Blood* : glucose tolerance, 288 (all estimations performed in duplicate); blood counts, 257; separate white cell counts, 6; differential counts, 43; reticulocyte counts, 4; urea estimations, 30; bacteriological examinations, 1; resting sugar estimations, 7; malarial parasite counts, 155; other blood films, 16; Wassermann reactions (done by Dr. W. Parry Morgan, Public Health Lab.) 267, Van Den Bergh reactions, 14; icterus indices, 12; blood sugars in connection with Cardiazol treatment, 187. *Cerebro-spinal Fluid* : Boltz acetic anhydride reactions, 70; cell counts, 115; colloidal benzoin reactions, 70; colloidal gold reactions, 4; globulin reactions, 115; Wassermann reactions, 59; chloride estimations, 1; sugar estimations, 1; sugar estimations (experimental, on animals), 454. *Miscellaneous* : autogenous vaccines, 2; sputum examinations (bacteriological), 60; bacteriological examination of faeces, 62; test meals, 2; resting gastric juice, 1; swabs, 8; faeces examined for T.B., 3; faeces examined for occult blood, 1; injections given for treatment of syphilis : N.A.B., 31, tryparsamide, 189, neocryl, 50, arseno-argenticum, 10; miscellaneous arsenical injections, 51.



## III.—FROM THE WEST RIDING MENTAL HOSPITAL, WAKEFIELD.

A.—*General Laboratory Report.*—By Dr. M. J. McGRATH, D.P.M., Medical Superintendent.

*Routine Work of the Laboratory.*—A summary of the 8,000 routine examinations performed during the year is given below :—

Bacteriological examination of faeces, 2,534; Widal's, 1,410; Pallida, Ballung's and Meinicke reactions, 1,875; blood and c.s.f. for W.R., 661; urine for chemical bacteriological examinations, 343; c.s.f. for colloidal gold, mastic and Boltz reactions, 300; blood counts, 252; sputa and faeces for t.b., 168; post-mortem tissue for sections 200; milk samples, 109; sugar estimations, 27; blood urea estimations, 12; blood cultures, 12; vomit and faeces for occult blood, 40; throat swabs for K.L.B., 12; pus for organisms and vaccines, 22; bacteriological examination of canned foods, 13; tapeworm segments for identification, 5; Van den Bergh reactions, 6; Friedman pregnancy tests, 2; post-mortem examinations, 155 (66 per cent. of deaths).

*Photography.*—Numerous photomicrographs, lantern slides of pathological specimens and bacterial cultures have been prepared during the year. In addition some 500 portraits of new admissions have been prepared for case sheet records.

*Pathological Museum.*—Several new specimens have been added to the museum and some of the old specimens have been re-mounted.

*Animal Inoculations.*—During the year Drs. McGrath and Burt have performed 102 animal inoculations under the provisions of the Home Office licences, for diagnostic and experimental purposes.

*Milk Analyses.*—Eighty-four samples of milk were examined by biological tests for T.B. Samples obtained from the Home Farm, Kitchens and Stanley Hall Farm during February, September, October and December were found to be tuberculous. The cultural methods of Lowenstein-Jenson and Petragani for the examination of suspected tuberculous specimens have been tried out during the year. Whilst these methods have given good results in some cases they have failed in others. Contaminated cultures are not infrequent and one feels that the guinea-pig inoculation is still the method of choice for eliminating or confirming the possibility of tubercular infection.

*Educational Work.*—The course for the D.P.M. examinations was held as usual during the summer term and instructions in histological and post-mortem technique were provided at the hospital. At the examinations held in September, Drs. Campbell, Knight and Shaffer were successful in gaining the Diploma and Dr. Metcalfe-Brown completed Part 2 of the examination.

*Certificate of the Laboratory Assistants' Association.*—At the examinations held at Manchester in July, the Junior Laboratory Assistant, Mr. R. A. Ward, was successful in gaining the Certificate of the Pathological and Bacteriological Laboratory Assistants' Association.

B.—*Asylum Dysentery and Allied Infections (Nineteenth Post-War Report).*—

By Dr. M. J. McGRATH, D.P.M., and Mr. A. L. HOWDEN, F.R.M.S.

*Widal Examinations for Typhoid and Dysentery of all new admissions.*

Widal reactions for typhoid and dysentery have again been continued throughout the year as a routine procedure and the results are tabulated below :—

Admissions			Positive Flexner	Positive Typhoid	Negative	Total
Male.	...	...	—	4	264	268
Female	...	...	3	1	245	249
Total...	...	...	3	5	509	517



*Bacteriological Examination of Faeces from New Admissions.*—During the routine examination of faeces from new admissions no organisms of the dysentery group were isolated.

One male patient, G. R., aged 51, admitted on 26th January, 1938, was found to be excreting typhosus bacilli and was immediately transferred to male isolation ward 36 as a suspected typhoid carrier.

Further investigations are being carried out with a view to determining the "carrier state" of this patient.

The early detection and isolation of this patient again illustrates the value of the routine bacteriological examination of the faeces from all new admissions.

*Dysentery.*—The female wards again remained free from dysentery throughout the year. Three cases occurred in the male wards; two of these, in the male isolation ward 36, had previously suffered from dysentery; the other case occurred in the male hospital. All three cases were treated with bacteriophages active against the causative organisms and all recovered.

Owing to the small number of cases treated with bacteriophages, it is felt that whilst the results are encouraging, no opinion can be expressed on the value of this form of treatment for dysentery at the moment. Further investigations will be carried out on future cases.

A brief summary of the cases and the results of the bacteriological examinations are given below :—

1. February 17th, 1937. F. N., age 31, Ward Male Isolation Hospital Admitted 18.12.34. Recovered 20.3.37. Organism isolated, B. dys. flexner "W."
2. March 12th, 1937. S. H., age 31, Ward 36\*. Admitted 30.10.30. Recovered 14.4.37. Organism isolated, B. dys. flexner "V." This patient had previously suffered from dysentery in March, 1934, August, 1935 and July, 1936.
3. July 6th, 1937. G. F., age 60, Ward 36\*. Admitted 6.10.34. Recovered 14.8.37. Organism isolated, B. dys. flexner "W."

\* Male Dysentery Isolation Ward

*Examination of Contacts in the Male Hospital.*—Routine bacteriological examination of the faeces of the dysentery contacts in this ward failed to reveal any active dysentery carrier.

As a result of Widal examinations, 7 of the patients were found to give positive reactions with B. flexner "W" and one of these, L. W. had previously suffered from flexner "W" dysentery in 1926. In spite of repeated bacteriological examination of the faeces from these patients no organisms of the flexner "W" type were isolated.

All the patients were inoculated with a B. flexner "W" vaccine and no further cases have occurred.

*Anti-Dysenteric Vaccines.*—The experimental inoculation of mice with various strains of dysentery bacilli is being continued with a view to obtaining detailed information regarding dosage and periods of immunity.

*Weekly Examinations of Specimens from Typhoid Carriers.*—The weekly examination of specimens of faeces from our typhoid carriers have been continued throughout the year.

During the routine examination of the faeces from the dysentery contacts in the male hospital, one patient, H. R., was discovered to be excreting b. typhosus. This patient was admitted to hospital on 31st March, 1913. There is no record of typhoid fever prior to or since admission to hospital.

Repeated examination of the faeces has proved this patient to be a typhoid carrier of the intermittent type.

There are now 5 female typhoid carriers isolated in female isolation ward 21. One male carrier and one suspected male carrier are isolated in male isolation ward 36.

One of the female carriers was discharged from hospital and one was transferred to another mental hospital.



MacConkey's medium and Wilson and Blair's medium have again been employed for the isolation of *b. typhosus* from the specimens of faeces and the results are given below :—

1. A. B., age 79. Admitted 24.3.1896. Detected as a typhoid carrier 16.10.30.				
<i>Medium.</i>				
		<i>No. of Specimens.</i>	<i>Positive.</i>	<i>Negative.</i>
MacConkey	...	52	17	35
Wilson and Blair	...	52	46	6
2. E. M. R., age 59. Admitted 13.8.1925. Detected as a typhoid carrier 23.10.1930.				
<i>Medium.</i>				
		<i>No. of Specimens.</i>	<i>Positive.</i>	<i>Negative.</i>
MacConkey	...	18	0	18
Wilson and Blair	...	18	4	14
This patient was transferred to another mental hospital on 7.5.1937.				
3. E. L., age 62. Admitted 5.11.1915. Detected as a typhoid carrier 2.12.1930.				
<i>Medium.</i>				
		<i>No. of Specimens.</i>	<i>Positive.</i>	<i>Negative.</i>
MacConkey	...	52	50	2
Wilson and Blair	...	52	50	2
4. J. W., age 45. Admitted 4.12.1917. Detected as a typhoid carrier 17.9.1932.				
<i>Medium.</i>				
		<i>No. of Specimens.</i>	<i>Positive.</i>	<i>Negative.</i>
MacConkey	...	52	0	52
Wilson and Blair	...	52	2	50
5. A. M. T., age 73. Admitted 8.9.1927. Detected as a typhoid carrier 19.10.1935.				
<i>Medium.</i>				
		<i>No. of Specimens.</i>	<i>Positive.</i>	<i>Negative.</i>
MacConkey	...	52	40	12
Wilson and Blair	...	52	46	6
6. E. D., age 57. Admitted 6.10.1933. Detected as a typhoid carrier 9.11.1933.				
<i>Medium.</i>				
		<i>No. of Specimens.</i>	<i>Positive.</i>	<i>Negative.</i>
MacConkey	...	52	1	51
Wilson and Blair	...	52	2	50
7. B. H., age 59. Admitted 29.10.1936. Detected as a typhoid carrier 2.11.1936.				
<i>Medium.</i>				
		<i>No. of Specimens.</i>	<i>Positive.</i>	<i>Negative.</i>
MacConkey	...	11	10	1
Wilson and Blair	...	11	11	0
This patient was discharged from hospital on 18.3.1937.				
8. H. R., age 50. Admitted 31.3.1913. Detected as a typhoid carrier 25.2.1937.				
<i>Medium.</i>				
		<i>No. of Specimens.</i>	<i>Positive.</i>	<i>Negative.</i>
MacConkey	...	53	5	48
Wilson and Blair	...	53	21	32

*Experimental Treatment of Typhoid Carriers with Bacteriophage.*—During the latter part of the year it was decided to try the effect of the administration of typhoid bacteriophage on two of the typhoid carriers. A. B. and E. L., two persistent excretors of typhoid bacilli, were given large oral doses of typhoid bacteriophage daily for one month. Daily bacteriological examination of the faeces throughout the period showed, in the case of A. B., some diminution in the numbers of typhoid bacilli excreted. In the case of E. L., however, no change was observed; the patient continued to excrete large numbers of typhoid bacilli.

Attempts are being made to increase the activity of the bacteriophage to enable further investigations to be carried out.

#### C.—*Pyrexial Treatment of G.P.I. Cases.*

An inductotherm has been purchased during the year for the treatment of cases of G.P.I.

It has proved a useful means of producing artificial fever in these cases without the risks attached to malarial therapy.

It is proposed to carry out the usual serological and chemical tests on the cases submitted to this form of treatment.

#### D.—*Publication.*

A paper on 4½ years' bacteriological examination of the faeces of typhoid carriers has been prepared by Mr. A. L. Howden and will be published shortly in the *Laboratory Journal*.



## IV.—FROM THE WEST RIDING MENTAL HOSPITAL, WADSLEY, SHEFFIELD.

*General Report on the Clinical and Pathological Investigations by the Medical Staff of the Hospital.* By Dr. ARTHUR POOL, M.R.C.P., D.P.M., Medical Superintendent.

*Pathological Laboratory.*

The work of the Laboratory was carried out by Dr. Thorpe and Dr. Turner, assisted by Mr. W. H. B. Vincent. The following is a summary of the work undertaken during the year :—

Blood : citochol, 645; Widal, 345; counts, 153; N.P.N., 15; sugar tolerance curves, 16; bromide, 24; grouping, 12; sedimentation rate, 32; fragility, 3; culture, 3; Van den Bergh, 3; blood sugar, 15; potassium, 2; calcium, 6; cholesterol, 4. Urines : general, 1,116; sugar quantitative, 78, culture, 5; vitamin C concentration, 47; vitamin C, 24 hrs.; specimen, 41. C.S.F. : gold, protein cells, etc., 70; N.P.N. and chlorides, 6. Faeces : bacteriological, 122; t.b., 140; occult blood, 20. Test meals : Fractional, 10. Sputum : 50. Pus, fluids, etc., 28. Ringworm and acarus scabei, 33. Milk : fat content, 24; B. coli and viable bacteria, 12; milk from farm cows, 280. Histology material : from 46 post-mortems, including 28 brains. Material from 6 operations. Swabs : throat, 27; vaginal, 17. Disinfectants : carbolic co-efficients, 5. Post-mortem examinations : 118 (66·6 per cent. of deaths).

*Dysentery and Typhoid.*

During the year there have been no cases of dysentery. One case (E. S.) was reported provisionally to the Board of Control. Her blood was positive to flexner X, 1/166, but this was repeated later and the titre was found to be stationary. This satisfactory record indicates that the new arrangements made at the end of 1936 for isolating active cases and carriers have been successful.

There have been no cases of typhoid fever.

*Vitamin C Subnutrition in New Admissions.*

During the year Vitamin C investigations have been continued on the new admissions using the Harris and Ray technique of estimating the urinary excretion of ascorbic acid and the results are being prepared for publication. Under-nourishment so frequently accompanies acute mental disorder that it was not surprising to find that many patients are admitted in a state of latent or sub-scurvy. In these cases the direct administration of ascorbic acid can be usefully employed.

*Blood Estimations for Syphilis.*

Further testing by the Sachs-Witebsky citochol reaction of the blood of patients admitted before the commencement of the present system of examination on admission has been continued. A further 150 of such patients have been tested. The whole hospital, excepting only a few senile patients, have now been examined.

*Cerebral Pathology.*

A brain, grossly degenerated in the frontal and parietal areas of one hemisphere is being examined and sectioned with a view to publication.

*Vaginal Smears.*

Research has commenced with a view to estimating, in involutional patients, the presence or absence of follicular hormone by examination of vaginal smears. In this way it is hoped that suitable patients for hormone treatment may be selected and that the dosage may be scientifically controlled.



*Clinical.*

*Insulin and cardiazol* treatments have been carried out on a small number of schizophrenics with very encouraging results. *Somnifaine narcosis* has also been successfully applied in selected cases of manic-depressive insanity.

*The treatment of dementia paralytica by electropyrexia* (inductotherm) combined with tryparsamide has been continued during the year and it is considered that this combination produces the best results with a minimum of risk to the patient.

*Report by Sir Arthur J. Hall, F.R.C.P.*

I have had the opportunity of seeing during the year, various recent *methods of treatment for schizophrenia* which have been carried out by the medical staff in a number of selected cases.

*Insulin Shock.*—To the general clinician, seeing this for the first time, the intensity of the pathological reaction and the completeness and certainty with which its progress can be regulated and controlled is a memorable experience, and a striking tribute to the accuracy of bio-chemical knowledge.

*Cardiazol Injections.*—Though even more dramatic in its immediate effects, yet the reaction is of so much shorter duration that it does not call for the same amount of prolonged care and judgment as the preceding.

Whilst both forms of treatment are necessarily of a severe kind, and require an amount of responsible preparation, care and experience quite as great as a major surgical operation, it must not be forgotten that the group of cases, which they are a serious attempt to relieve, are mental disorders of a severe kind which, occurring as they do in young persons, render them incapable of looking after themselves, and have hitherto been generally considered as incurable.

As regards the results obtained here so far, it is not yet time to make any definite statement. This will, no doubt, be forthcoming when the series is completed. Meanwhile, it is possible to say that in some of the cases at any rate, the results at present are encouraging.

The treatment of the cases of *chronic encephalitis* in a separate block by various forms of atropin and occupational therapy has been continued during the past year with satisfactory results.

Mention should be made of one case on high atropin dosage in whom there was rapid loss of flesh without obvious cause. Similar cases of rapid and severe wasting have been previously described by various writers during this form of treatment, and are said to have been successfully met by giving glucose and insulin.

In our case (W.), a male Parkinsonian, age 35, with oculogyric attacks had for some time been on a daily dose of 15 mgs. of atropin with distinctly beneficial results. He began to lose flesh rapidly in July, 1937. In the previous January his weight was 9 st. 5½ lbs. In August it had fallen to 7 st. 5½ lbs. Treatment by glucose and insulin was adopted in August, 1937, 5 units of insulin being given daily. The man's weight rose rapidly, and at the end of the year had reached 10 st. 8 lbs., a gain of over two stones in 6 months.

*X-Ray and Electro-Therapeutic Departments.*

*X-Ray Department.*—Total number of patients X-rayed was 450 (222 male patients, 179 females and 49 members of the staff). Total number of films used was 836; the average number of films per case being 1·8. Number of patients screened 18. Number of special investigations 42. The above total includes 3 patients from Storthes Hall.



Electro-Therapeutic Department.

Ultra Violet Light.—Patients treated numbered 34 (12 males, 16 females and 6 staff), making 1,168 attendances.

Infra Red Ray.—Attendances numbered 158—made by 2 male patients and 2 members of the staff.

Radiant Heat.—One male patient who made 14 attendances.

Short-Wave Therapy.—The total number of treatments was 266. Number of patients treated being 25 (16 males, 8 females and 1 member of the staff).

Dental Work.

Dental work is carried out by Mr. W. J. Law, the Visiting Dentist, who attends the hospital weekly :—

	Number seen	Extractions	Various.
Males ... ..	290	343	135
Females ... ..	204	270	86
Total ... ..	494	613	221

Mental Out-Patient Centres.

At the Royal Infirmary, Sheffield, under Drs. A. G. Yates, White and Turner, the work carried out during the year has been as follows :—

Number of new cases, 184; number of attendances of old cases, 1,972. Classification of new cases : manic depressives, 18; dementia praecox, 8; epilepsy, 12; general paralysis of insane, 3; psychoneuroses, 80; various psychoses, 19; involutional cases, 34; child guidance, 10.

At the Royal Hospital, Sheffield, under Drs. E. F. Skinner, Mathieson and Elisabeth Sykes :—

Number of new cases, 112; Number of attendances of old cases, 1,316. Classification of new cases : Paranoia, 3; manic depressives, 57; dementia praecox, 8; epilepsy, 7; general paralysis of insane, 9; psychoneuroses, 10; confusional types, 4; post-encephalitis and other types, 10; imbecility, 4.

At the Alma Road Hospital, Rotherham, under Drs. G. E. Mould and F. T. Thorpe.

Total number of attendances, 1,263 ; total number of patients, 192 ; number of new cases, 126. Classification of new cases : psychoneuroses, 40; melancholia, 37; dementia praecox, 8; delusional, 9; dementia paralytica, 2; arterio-pathic, 3; epilepsy, 8; mental deficiency, 4; confusional, 8; mania, 4; post-encephalitis, 2; no mental abnormality, 1.

Publication.

A case of “ Terminal Caseating Tuberculous Broncho-Pneumonia ” in which the date of onset was known, by Dr. C. E. H. Turner.

A normal X-ray picture of the chest, taken 6 weeks before death, was used to prove that the extensive tuberculosis found at post-mortem was of extremely short duration. The cause of this rapid terminal infection was the weakened state of the patient who, from suicidal motives, had for years induced vomiting after each meal.

(British Medical Journal.)



## V.—FROM THE WEST RIDING MENTAL HOSPITAL, MENSTON, LEEDS.

*General Report.*—By Dr. R. CLIVE WALKER, Medical Superintendent.

## A.—Routine Laboratory Work.

The following is a summary of work carried out during the year :—

*Histological.*—Pathological tissues, 51; blood films and differential counts, 41; haemoglobin estimations, 20. *Bacteriological.*—Faeces for typhoid-dysentery group, 59; milk samples, 55; Meinicke clarification tests, 109; Widal reactions, 40; sputa, 190; urines, cultures, etc., 138; throat swabs, 19. *Chemical.*—blood sugars, 5; quantitative urine examinations, 138. *Post-mortem examinations*, 87 (52 per cent. of deaths).

## B.—Out-patient Centres.

*Bradford Royal Infirmary.*

Under Dr. R. Clive Walker. One session weekly.

Number of new cases : Male, 52; female, 60; total, 112. Admitted to mental hospital :—

				M.	F.	T.
as Voluntary	...	...	...	9	16	25
Certified	...	...	...	3	2	5

*Harrogate and District General Hospital.*

Under Dr. John Russell. One session weekly.

This centre was opened in June, 1937.

Number of new cases : Male, 12; female, 22; total, 34. Admitted to mental hospital :—

				M.	F.	T.
as Voluntary	...	...	...	1	1	2
Certified	...	...	...	1	1	2

## VI.—FROM THE WEST RIDING MENTAL HOSPITAL, STORTHESS HALL, KIRKBURTON.

*General Report on Clinical and Pathological Investigations by the Medical Staff of the Hospital and Technical Assistant (Mr. J. A. Burgess).* By Dr. C. W. EWING, D.P.M., Medical Superintendent.

## A.—Routine Laboratory Work.

The following is a summary of the 5,511 examinations which were carried out during the year :—

Blood : W.R., 447; M.K.R., 447; Widal's, 802; bromides, 30; sugars, 53; ureas, 45; N.P.N., 2; sedimentation rate, 53; cultures, 6; blood counts (W. and R.), 161; blood counts (differential), 78; blood counts (reticulocyte), 3; blood films (malarial), 79; blood grouping, 8. C.S.F. : Colloidal gold reaction, Ross Jones globulin test, Boltz acetic anhydride test, cell counts, W.R. protein content, 39 each; Kahn reactions, 4; sugars, 1; chlorides, 1; bi-coloured Guaiac test, 15. Dejecta : bacteriological examinations of stools, 692; examinations of stools for *E. histolytica*, 4. Urine : routine, 902; estimation of glucose, 110; ketone tests, 846; urea concentration tests 2. Sputa : 37. Throat swabs, pus, etc., 44. Pleural effusion : 1; stomach contents, 10; autogenous vaccines, 4; pathological sections, 115; bacteriological examinations of water, 4; bacteriological examinations of milk, 12; fat estimations, 12; staff examinations (all kinds), 166. Post-mortems, 81 (33 per cent. of deaths).

*Enteric and Dysentery.*—The examinations of the sera of all new admissions for agglutination of *B. typhosus* and *B. dysenteriae* was continued. The



stools of those giving a positive reaction to dysentery were subjected to repeated bacteriological examinations with negative results. In no case was a positive serological reaction to enteric recorded in the new admissions.

*Enteric in Cases other than New Admissions.*—There was one female case of enteric during the year contracted in the isolation ward (F. 23). The source of infection in this case was traced to a carrier.

*Dysentery.*—There were 16 cases of dysentery, 6 male and 10 female. Of the males 1 was recurrent (a transfer from another mental hospital). All male cases were B. dys. (Flexner W.Y.). Of the 10 female cases 1 was contracted in isolation ward, 5 were B. dys. (Flexner W.Y. type), and 5 (all transfer cases) were of B. dys. (Flexner Z.). During the course of investigations 7 dysentery carriers, 3 male and 4 female (all of B. dys. Flexner W.Y. type), were detected.

*Wassermann and Meinicke Reactions* were carried out on all admissions (direct and transfers).

Since the year 1929 when these tests were first applied to all admissions in this hospital, the total number of patients examined up to the 31st December, 1937, and the results are summarized in the following tables :—

## Blood.

Admissions.				W.R. + per cent.		M.K.R. per cent.	
Males ...	...	1,766	...	204	(11·54)	193	(10·93)
Females ...	...	1,989	...	108	(5·45)	117	(5·88)
Total ...	...	3,755	...	312	(8·31)	310	(8·25)

## C.S.F.

Blood			C.S.F.			
W.R. +			W.R. +	W.R. —	Too ill to be examined.	
Males	...	204	154	34	16	
Females	...	108	64	29	15	
Total	...	312	218	63	31	

A revision of these 3,755 admissions and their serological reactions in relation to those cases diagnosed as suffering from G.P.I. in both sexes is shown in the following tables :—

(a) Percentage of G.P.I. in total admissions.

Admissions.				Diagnosed G.P.I.		Percentage.	
Males ...	...	1,766	...	170	...	9·62	...
Females ...	...	1,989	...	75	...	3·77	...
Total ...	...	3,755	...	245	...	6·52	...



(b) *Percentage of cases of G.P.I. in total syphilitics.*

Total syphilitics				Total G.P.I.	Percentage.
Males	...	...	204	170	83.33
Females	...	...	108	75	69.44
Total	...	...	312	245	78.52

(c) *Number of cases of G.P.I. since 1929.*

				Blood + C.S.F. +	Blood + C.S.F. —	Too ill to have C.S.F. examined.	Total.
Males	...	...	...	154	7	9	170
Females	...	...	...	64	2	9	75

*Milk Supply.*—The milk supply was submitted to bacteriological examinations both by plate culture and by the methylene blue reductase test each month throughout the year.

*Water Supply.*—Bacteriological examinations of the water supply were also regularly undertaken.

B.—*Post-mortem Examinations of Special Interest.*—By Dr. W. SHARP, D.P.M.

(1) G.W., male, aged 62, admitted August 29th, 1927, died February 3rd, 1937. History of major epileptic fits since childhood. During his stay in hospital had numerous epileptic fits and showed the typical syndrome of epileptic dementia. On no occasion were any signs of local disease of the nervous system detected.

He died in a condition of coma, apparently of urdemic origin as he had albumen and tube casts in the urine with a blood urea of 88 mgm. per cent.

Post-mortem revealed advanced chronic Interstitial Nephritis.

Examination of the brain showed the grey and white matter of the Island of Reil on the right side to be completely replaced by tumour growth extending into the wall of the right lateral ventricle. The growth showed numerous areas of haemorrhage and necrosis and had no clear demarcation from the normal tissue of the brain.

Microscopic examination showed a very cellular tumour with numerous areas of necrosis and haemorrhage, many newly formed blood vessels with thin walls and overgrowth of the endothelium. The cells of the tumour showed a marked degree of pleomorphism. Astroblasts, astrocytes and spongioblastic forms could be detected. Appearance typical of glioblastoma multiforme.

(2) W. B., male, aged 51, admitted August 26th, 1933, died July 19th, 1937.

*Physical Examination.*—Left Hemiplegia with spastic contractures, increased tendon reflexes and extensor plantar response.

*Mentally.*—His attention could not be obtained. He muttered incoherently, was restless and excitable and apparently hallucinated.

*Post-mortem Examination.*—Brain: A depression on the surface of the right frontal lobe was found on section to be an area of old softening (2 cm. by 3 cm.) of reddish yellow colour extending from the anterior aspect of right middle frontal gyrus through the white matter and involving the genu of the



internal capsule. On the under surface of the brain at the junction of the left anterior cerebral artery with the anterior communicating artery there was an aneurysmal dilatation (2 cm. by 2 cm.) which had produced a deep depression on the brain substance on the medial aspect of the left frontal lobe. The aneurysm showed thickening of the intima and adventitia with atrophy of the media.

Section of the spinal cord showed degeneration of the lateral pyramidal tracts.

(3) H.S., male, aged 46, admitted November 23rd, 1936, died January 20th, 1937. History of attacks of twitching affecting the left side of the face and left hand and arm.

*Physical Examination.*—Flaccid paralysis of left side of face with spastic left hemiplegia.

*Mentally.*—Very dull, somnolent and confused. Restless and resistive at times; attention could not be obtained; could not co-operate.

*Post-mortem Examination.*—Brain: Convolutions of brain showed marked flattening, much reduction in amount of cerebro-spinal fluid in subdural space. An area of tumour tissue (7 cm. by 7 cm.) in the lower part of the right frontal lobe, encroaching on the lower portion of the motor area. On section the tumour extended inwards to the white matter of the corona radiata and the anterior limb of the internal capsule. No line of demarcation from normal brain tissue. Numerous areas of haemorrhage and necrosis. Microscopically the appearance of a glioblastoma multiforme.

(4) G.S., male, aged 67, admitted December 11th, 1937, died December 14th, 1937.

*Clinical Condition.*—Very cachectic and wasted, cyanosed, clubbing of fingers. Respirations 40 per minute. Marked flattening of right chest, limitation of movement both sides. Dullness on percussion at both bases with absent breath sounds. Abdomen distended and tympanitic.

*Post-mortem Examination.*—The visceral pleura on both sides was replaced by sheets of white tissue very adherent to the lung and parietal pleura. The tissue was about 1 cm. thick. The diaphragm was adherent to the lung and pleura and the under surface showed numerous lenticular nodules of new growth. The intestines were matted together by serro-fibrinous material and the peritoneum was covered by numerous white lenticular nodules. The omentum was rolled up into a solid mass.

On section the pleura and the secondary nodules were seen to consist of a mass of fibrous tissue, having numerous deeply staining cells showing a great variety of shapes, sizes and deformities. The muscle of the diaphragm was infiltrated by tumour cells.

Macroscopical and microscopical appearances were those of endothelioma of pleura and peritoneum.

## VII.—FROM THE LANCASHIRE COUNTY MENTAL HOSPITAL, LANCASTER.

*Report of Clinical and Pathological Investigations.*—Communicated by Dr. J. D. Silverston, Medical Superintendent.

### *Laboratory Work.*

The following is a summary of the 4,399 examinations which were carried out during the year:—

Urines.: chemical, 1,754; bacteriological, 8; for typhoid group, 81; for bismuth, 1. Faeces: bacteriological examinations, 386; chemical examinations, 5. Blood counts: routine and special, 482. Blood films: for malarial parasites, 442. Blood-agglutination tests, 95. Blood, chemical: bromide estimations, 162; sugar estimations, 21; glucose tolerance tests, 6; urea estimations, 8; miscellaneous tests, 7. Blood, bacteriological, 2. Sputa: bacteriological, 76; chemical, 1.



C.S.F.: routine, 140; for bismuth, 12. Pus, bacteriological, 36. Throat-swabs, bacteriological, 8. Swabs: miscellaneous, bacteriological, 10. Fluids: miscellaneous, bacteriological, 15. Histological preparations, 7. Vaccines: staphylococcus albus, 100 ccs.; staphylococcus aureus, 80 ccs. Post-mortem examinations, 60 (34.1 per cent. of deaths).

*Pathogenic organisms discovered during routine examination of faeces.*—Total specimens examined, 1,012. Organisms found: Flexner Y, 1 case; shiga-, 2 cases; Morgan No. 1, 1 case; Flexner (non-agglutinating), 8 cases. Staphylococcus albus, 55 cases; streptococcus longus, 51 cases.

*Treatment of Post-encephalitic Parkinsonism by High Atropine Dosage.*—By Dr. H. B. CRAIGIE, D.P.M.

This method of treatment was commenced in the hospital in May, 1937, upon the lines suggested by Hall (*B.M.J.*, April 17th, 1937).

Out of a total number of 27 cases of post-encephalitic Parkinsonism resident in the hospital at this period, 24 cases were selected as being suitable for the treatment (16 female, 8 male). Most of these cases had already been receiving fairly large doses of stramonium or belladonna before the atropine treatment was commenced.

The results of treatment have proved very encouraging, as the tabulated results given below show. In all cases, the drug treatment itself has been supplemented by psychological measures and by occupational therapy.

The greatest degree of improvement has occurred in the physical disabilities, but in over 50 per cent. of cases there has also been a gratifying improvement in the mental condition. Physically, the greatest benefit has resulted from the relief of muscular rigidity, and from the abolition of excessive salivation. Oculo-gyric crises have been considerably reduced in frequency. In certain cases the improvement has been remarkable, and patients previously bed-ridden and helpless can now dress themselves, help in the ward, walk about, dance, and join actively in various forms of handicraft.

Complications have not, on the whole, been troublesome. The commonest has been vomiting, taking the form of "bilious" attacks. These complications are noted below, in their relative rate of incidence.

Of the original 24 patients under treatment, 1 died, and in a second the treatment was stopped. The former was an advanced case, who died 4 months after admission to the hospital; his condition was not influenced, for better or worse, by the treatment.

In the latter case, some degree of mental confusion became persistent, and as the physical disabilities were not marked, further treatment by this method was considered unnecessary.

An interesting complication noted in one patient was dilatation of the stomach. This occurred in an advanced case showing very severe physical disability: no improvement was obtained until a daily dosage of over 100 m.gm. of atropine sulphate was reached. When the dosage reached 120 m.gm. per day, physical progress was pronounced, but persistent vomiting occurred, and an X-ray examination of the alimentary tract showed considerable dilatation of the stomach. The dosage was gradually reduced to 60 m.gm. per day, but the patient's physical progress relapsed correspondingly. After a month's interval, the dosage was again cautiously increased. He is now receiving 130 m.gm. per day; physically, there is a great improvement, and a further X-ray examination of the stomach shows no marked abnormality.

At the end of the year, 22 patients were under treatment. The average daily dose per patient was 57 m.gm. of atropine sulphate; the highest dose was 130 m.gm. per day.

In the following summary of results, Hall's method of classification has been followed. The psychotic disability was marked in all cases. In Group I the patients were completely independent from the physical point of view. In Group III they were completely dependent, requiring to be fed and dressed, and being unable to walk without attention. In Group II the physical condition showed varying degrees between these two groups.



General Results of Treatment.

	Group.				No. of Cases before treatment.	No. of cases after treatment.
I	...	...	...	...	5	11
II	...	...	...	...	8	10
III	...	...	...	...	11	3

These results may be analysed as follows :—

	Group.				Great improvement.	Definite improvement.	Slight or no improvement.
I	...	...	...	...	3	1	1
II	...	...	...	...	1	3	4
III	...	...	...	...	5	3	3
Total					9	7	8

Summary of Complications.—Gastro-intestinal disturbances, 12 cases (50 per cent.); visual disturbances, 7 cases (29·2 per cent.); occasional mental confusion, 5 cases (20·8 per cent.); difficulty in starting micturition, 4 cases (16·7 per cent.); dryness of mucous surfaces, 3 cases (12·5 per cent.); dilatation of stomach, 1 case (4·2 per cent.).

Treatment of Catatonia by Sodium Amytal. By Dr. H. B. CRAIGIE, D.P.M.

Towards the end of the year, treatment of selected cases was commenced by the injection of sodium amytal (Lilly) intravenously. So far, this method of treatment has been employed in 4 cases—3 of katatonic schizophrenia, 1 of involutional melancholia. The results have been encouraging, and the investigations are being continued.

Blood Bromide Content in New Admissions.—By Dr. H. B. CRAIGIE, D.P.M., and Dr. J. S. ROBSON.

During the course of the year, it was decided to make an estimation of the blood bromide content in every new admission. The method adopted has been Walter's Test, as modified by Hauptmann and Dixon. At the end of the year, estimations had been made upon 162 consecutive cases (male and female).

The results of these estimations are shown below :—

- Blood Bromide Level.—Below 25 mgm. per 100 cc., 121 cases or 74·7 per cent.
- Between 25 mgm. and 100 mgm. per 100 c.c., 20 cases or 12·3 per cent.
- Between 100 mgm. and 150 mgm. per 100 c.c., 15 cases or 9·3 per cent.
- Between 150 mgm. and 200 mgm. per 100 c.c., 5 cases or 3·1 per cent.
- Above 200 mgm., 1 case or 0·6 per cent.

In this series only 1 case of bromide intoxication was present. This occurred in a male private patient, aged 57, who presented on admission the clinical features of an acute confusional psychosis and a blood bromide level of 225 mgm./100 cc. His physical health was poor, but the cardio-vascular system was fairly normal for a man of his age. Copious quantities of fluids, and grs. 30 of sodium chloride 4-hourly, were administered. After 2 weeks, the blood bromide level had fallen to 125 mgm. per 100 cc., and his physical condition had improved; the confusion had completely disappeared, and he was able to give a clear account of his illness. Three weeks after admission he became acutely depressed: the blood bromide level at this stage was 50 mgm. per 100 cc. Since then he has presented the typical clinical picture of involutional melancholia: there has been no further confusion, and the physical improvement has been maintained.



*Incidence of Syphilis in New Admissions.*—By Dr. J. D. SILVERSTON and Dr. H. B. CRAIGIE.

As in previous years, the Wassermann reaction (blood) has been applied to every new admission.

For the year under review, out of a total number of admissions of 433, 31 cases or 7·2 per cent. showed a positive reaction. Of the male cases, 10 per cent., and of the female cases 5·32 per cent., showed a positive reaction.

The figures for each year of the period 1933–1937 are as follows :—

Year.	Admissions.			+ W.R. %	Admissions.			+ W.R. %
1933	Males	...	208	14·90%	Females	...	315	8·25%
1934			183	10·93%			310	8·06%
1935			177	13·50%			302	4·30%
1936			160	14·37%			316	4·11%
1937			170	10·0%			263	5·32%

The Wassermann reaction was positive in the cerebro-spinal fluid in 19 cases—11 male, 8 female.

Out of the total number of positive Blood Wassermann reactions, 64·7 per cent. (72·6 per cent.) of the males and 57·1 per cent. (47·2 per cent.) of the females, were found to be suffering from dementia paralytica: the figures in brackets represent the corresponding mean percentages over the 5 year period 1933–1937.

*Cardiazol in Dementia Praecox.* By Dr. G. R. WADSWORTH, D.P.M., and Dr. R. PAKENHAM-WALSH, D.P.M.

Up to the end of 1937, 6 out of 10 (8 males and 2 females) cases of dementia praecox showed rapid improvement, apparently as the result of cardiazol treatment.

The number of severe fits varied between 2 and 14. In 1 patient receiving 2 injections, treatment was abandoned owing to thrombosis of the 1 available vein. The minimum effective dose was 4½ cc. (0·45 grams) and the maximum 7½ cc. (0·75 grams), but there appeared to be no consistent relationship between the dosage and the weight of the patient: with small frail patients, however, it was considered desirable to try 4½ cc. rather than to use the customary 5 cc. dose, the latter proving rather severe for two such cases.

The cases selected for treatment were, as far as could be ascertained, of less than 4 years duration. The ages ranged from 17 to 30. Heredity was considered to be a predisposing cause in 1 patient, who failed to improve.

Of the failures, there were 2 of the hebephrenic and 2 of the paranoid type: these included 1 case (female paranoid) of less than 1 year's duration and she is now (February, 1938) improving. The successes were divided equally between the hebephrenic, katatonic, and paranoid types (2 each).

The percentage of "successes," graded according to the duration of the illness, were as follows :—

Less than 1 year	...	...	...	80 per cent. (4 out of 5).
" " 2 years	...	...	...	75 per cent. (6 out of 8).
" " 3 years	...	...	...	75 per cent. (6 out of 8).
" " 4 years	...	...	...	60 per cent. (6 out of 10).

The only complications were vomiting, headache, marked pallor, apprehension, refusal of treatment, and thrombosis of the veins.



*Stovarsol as an Adjuvant to Malaria in General Paralysis.*—By Dr. R. PAKENHAM-WALSH, D.P.M.

Oral administration is an obvious advantage of stovarsol over tryparsamide, but the relative clinical value of these drugs has not yet been determined.

On the male side of this hospital, the routine use of tryparsamide (as an adjunct to malaria) has been discontinued since November 1935, and the results of substituting oral chemotherapy have so far been satisfactory. Pure stovarsol was used at first, but bismuth-stovarsol (bistovol) has been given during 1937. Since November 1935, 8 out of 26 consecutive male G.P.I. admissions have been discharged (excluding re-admissions and cases treated with malaria prior to admission). Seven of the 8 discharged cases were treated with oral chemotherapy for 1 to 6 months prior to malaria and showed progress towards recovery during the same period, i.e. while stovarsol or bistovol were used exclusively. The discharge rate of 30·8 per cent. in the present series compares favourably with the corresponding figure of 21·7 per cent. obtained from the previous 138 male general paralytics admitted consecutively since the introduction of malaria and tryparsamide to this hospital in 1927.

Details of the serological and clinical results of stovarsol treatment are also described in the following publication:—

Pakenham-Walsh, R., and Rennie, A. T.: *Lancet*, I, 982, 1937. "Oral Administration of Stovarsol in Cases of Neurosyphilis Certified as Insane."

*Oestrin Therapy in Involutional Psychoses in the Female.*—By Dr. G. R. WADSWORTH, D.P.M., and Dr. B. D. UPTON-JONES.

During 1937, 7 cases of mental disorder associated with the climacteric in the female, were subjected to treatment by ovarian preparations. In all cases Dimenformon (Organon laboratories 50,000 units per cc.) was the preparation employed and the intramuscular route used. In a few cases it was supplemented by Dimenformon given by mouth. The dosage employed varied from 30,000 to 50,000 units and was given twice weekly intramuscularly, and in the 3 cases that recovered, 10 cc., 8 cc., and 5 cc., respectively, were sufficient.

Two cases which received respectively 20 cc. and 10 cc. Dimenformon, showed slight improvement, but are still in hospital.

One case which received 8 cc. menformon (10,000 units per cc.) showed improvement and was discharged "relieved" from hospital.

One case which received 10 cc. Dimenformon showed no improvement.

The series of cases here reviewed is small, but as the percentage of recoveries obtained is encouraging, the treatment will be continued as far as possible in uncomplicated cases of involution psychoses.

VIII.—FROM THE LANCASHIRE COUNTY MENTAL HOSPITAL, RAINHILL, LIVERPOOL.

*Report of Clinical and Pathological Investigations.*—Communicated by Dr. E. F. REEVE, Medical Superintendent.

*Laboratory and X-ray Report.*

The total number of examinations carried out during the year 1937 was 2,258, of which 1,746 were for the hospital and 512 for the County Hospital, Whiston.



## Summary of year's work for the hospital :—

Blood counts, 55; films for general cytology, 42; total non-protein nitrogen, 5; sugar estimation, 5; Van den Bergh, 5; culture, 2; Widal, 2. Sigma ( $\Sigma$ ) reaction, 382. Kahn test for dementia praecox, 67. C.S.F. routine including Lange's curve and Sigma ( $\Sigma$ ) reaction, 50. Urine: routine and microscopic examination, 626. Vomit, 2. Stools, for dysentery, 58; clearance tests, 59; t.b. and occult blood, 10; rectal swabs for dysentery, 20; sputa for t.b. and other organisms, 36. Material from lesions for bacteriological and cultural examinations, 8. Vaccines supplied, 4. Milk for estimation of cream percentage, 24; margarine analysis, 5. The X-rays numbered 260 and were comprised of chests, heads, G.I.T. (barium meals), barium enemas, kidneys, by the uro-selectan method; and general radiographic examinations. Post-mortems, 71 (46 per cent. of deaths).

## Summary of year's work undertaken for the County Hospital, Whiston :—

Blood counts, 20; total non-protein nitrogen, 40; sugar estimation, 3; culture, 4; Sigma ( $\Sigma$ ) reaction, 238. C.S.F. routine and cultural including Lange's curve, Sigma ( $\Sigma$ ) reaction and microscopic examinations for t.b. and other organisms, 13. Urine: routine and bacteriological examination, 26. Sputa for t.b. and other organisms, 102. Vaginal and urethral smears for G.C., 19. Miscellaneous: material from lesions, 21; microscopical sections of pathological material, 5. Fractional test meals, 9; stools, 4; X-rays, 8; these were chiefly G.I.T. and kidneys by the uro-selectan method.

*A Study of the Metabolism of Phenobarbitone Solubile in 9 Female Epileptics treated with the Drug.*—By Mr. G. V. JAMES, M.Sc., F.I.C., and Mr. W. L. Nixon, M.P.S.Lond.

The drug was estimated in the various fluids by the method of W. Autenreith (*Detection of Poisons*, 6th Edn., 1928, J. & A. Churchill, p. 568). As controls, various quantities of phenobarbitone soluble were added to urines freshly obtained from normal healthy people, who either had never taken the drug, or had not taken it within the last few weeks. An average recovery of 94.8 per cent. was obtained.

The salt appears to be completely absorbed from the alimentary canal, as shown by its absence from the faeces examined, and it appears to be largely excreted through the urine, the percentage excretion being roughly proportional to the time the patient had been on the drug.

TABLE 1.

Patient.	Time on drug.	Average % excreted.	Average % retained.
1	11 months	70%	+ 30%
2	16 "	75%	+ 25%
3	22 "	72%	+ 28%
4	24 "	130%	— 30%
5	25 "	72%	+ 28%
6	40 "	102%	— 2%
7	40 "	103%	— 3%
8	102 "	91%	+ 9%
9	108 "	82%	+ 18%

The concentration of the drug per unit volume of urine passed in unit time is greater during the day than in the night, and is higher in the morning than in the afternoon, in those cases examined, vide Tables 2 and 3.



TABLE 2.

Patient.						c/v day.	c/v Night.
1	...	...	...	...	...	·033	·0154
2	...	...	...	...	...	·0175	·006
3	...	...	...	...	...	·030	·055
4	...	...	...	...	...	·020	·0073
5	...	...	...	...	...	·030	·0031
6	...	...	...	...	...	·074	·0325
7	...	...	...	...	...	·022	·0031
8	...	...	...	...	...	·021	·0054
9	...	...	...	...	...	·010	·0031
Average ... ..						·0284	·0143

TABLE 3.

Patient.						c/v Morning.	c/v Afternoon.
4	...	...	...	...	...	·025	·0143
5	...	...	...	...	...	·0192	·0400
8	...	...	...	...	...	·0290	·013
Average ... ..						·0344	·0224

In the cerebro-spinal fluid the quantity of phenobarbitone soluble present was approximately proportional to the time the patient had been on the drug.

Patient.						Time.	% Phenobarb.
1	...	...	...	...	...	11 months	·02
2	...	...	...	...	...	16 "	·025
4	...	...	...	...	...	24 "	·036
7	...	...	...	...	...	40 "	·070

The phenobarbitone separated from the urine and from the cerebrospinal fluid all showed the presence of phenyl ethyl acetyl urea, a decomposition product of barbitone, identified by its scanthydrol compound. This suggests that the organism has the property of partially metabolizing the drug, but as no estimations were made no trustworthy deductions can yet be drawn.

*A Case of Balantidiosis.*—By Dr. D. L. MACKENZIE, D.P.M., and Mr. H. BEAN, Chief Laboratory Technician.

The patient, a well nourished female, in good general health, aged 31, was admitted to hospital on January 22nd, 1936. Mentally she presented the typical picture of the katatonic variety of schizophrenia and since admission has progressively demented.

On June 9th, 1937, patient was confined to bed with frequent loose stools, but no other clinical signs or physical disturbance. The stools were clay-coloured and contained a liberal mixture of pus and mucus. No growth, other than the colon group occurred on media. Smears examined with the microscope revealed large oval organisms, darting in and out of the field,







*Treatment of General Paresis.*—During 1937 23 patients suffering from general paresis were treated with pyrifer injections. The number of rigors varied between 8 and 12. The results were disappointing. Only 1 patient was discharged recovered, and 3 were considered to have improved. Since the effects of malaria are very much better, the pyrifer treatment has been discontinued.

In assessing the value of treatment in general paresis it is wise to reflect that the number of these patients admitted nowadays is much smaller than 10 years ago, and the health of the sufferers is on the whole much worse. This may be due to larger numbers being treated in general and municipal hospitals (naturally they will choose the earliest cases) or it may be due to a decrease in the incidence of general paresis. The time is now ripe for a comprehensive survey of the effects of antisyphilitic treatment especially with regard to the onset quaternary manifestations.

*Insulin Shock Treatment.*—A centre for the treatment of schizophrenia is being prepared and will be in use early in the new year.

*Dental Surgeon.*—The Dental Surgeon visited the hospital twice weekly. Eight hundred and forty patients were seen, of these 92 were visited in the wards. Two thousand and sixty-five extractions were performed and 410 anaesthetics, local and general, were administered. Seventy-four cases were treated by scaling, cleaning and oral prophylaxis generally, and 219 received other surgical operations including fillings. Twenty were supplied with new dentures and 21 had their old dentures remodelled. Thirty-eight had their dentures repaired.

*Various investigations at present in progress.*

*Melancholia.*—Some chronic and long-standing cases have been treated with daily injections of histamine. In melancholia there is possibility of disturbances of sympathetic para-sympathetic balance resulting in narrowing of vessels in the brain and other organs, also alteration of visceral impulses reaching the brain. The stimulating effect of histamine on appetite also seems of value in these cases.

*Epilepsy.*—Some cases are being treated with mandelic acid. The Ketogenic diet has previously been considered of value in epilepsy and possibly therefore mandelic acid might be of use. There is a suggestion that there may be some acid base disturbance of the blood and consequently this is being investigated.

*Dysentery.*—Experiments have been made on the viability of the organism which confirm reports that the organism may live for many weeks either dry, in water or in faeces. This shows that a ward where a case breaks out may remain a possible source of infection for months. In particular the lavatories of such a ward may be a source of danger unless rigorously disinfected. Vaccines for dysentery have not yet been shown to be completely satisfactory and work is being done to see if a more satisfactory method cannot be discovered.

*Culture Media.*—Experiments are being made in endeavour to isolate hormone growth factors of culture media.

*Mental Out-patient Centres.*—Three out-patient clinics are held in connection with this hospital, at Preston, Blackburn and Burnley. These clinics are held at the respective general hospitals of these towns.

The number of patients seen is being maintained and as far as possible they are treated at the clinics. The Burnley clinic has now been under our control for a full year and it is filling a long felt want in that district. The clinics are held weekly. At the Royal Infirmary, Preston, the number of new patients was 50 and the total number of attendances 74. At the Royal Infirmary Blackburn, the number of new patients was 76 and the total number of attendances 500. At the Victoria Hospital, Burnley, the number of new patients was 96 and the total attendances 296.



*Clinical Cases.*—By Dr. J. MACKAY, D.P.M.

Case 1.—A patient, W.F.H., suffering from delusional insanity, admitted April 3rd, 1901. Age 44.

He maintained fair health until the early part of 1933, when he showed signs of cardiac insufficiency. He died on March 13th, 1937.

A post-mortem examination revealed advanced arteriosclerosis and myocardial degeneration.

The most striking finding, however, was a greatly enlarged gall bladder,  $4\frac{1}{2}$  ins. in length. It contained three large stones and numerous small ones. The measurements of the three large stones were  $1.25 \times 1$  in.,  $1.2 \times 0.6$  in.,  $1.75 \times 2$  in. The wall of the gall bladder was tightly stretched over the stones, and there was no bile present.

Despite the fact that the patient was of the querulous type, he never once made complaint of abdominal pain.

Case 2.—Male patient, J.T., aged 69. Admission to hospital 1901.

On September 27th, 1937, he complained of not feeling well. His temperature was  $100.6^{\circ}$  F. In a few days' time he developed signs of pleural effusion on the left side. On October 11th, cardiac embarrassment was so pronounced that it was decided to aspirate. The fluid withdrawn was not blood-stained. Prontosil was given in 15 grain doses thrice daily. The temperature gradually subsided and his general condition improved, although it was still possible to demonstrate fluid in the chest.

About the middle of December a change for the worse was noted. Signs of heart failure appeared. He died on December 20th, 1937.

Post-mortem examination.—The main pathological features were as follows:—The right lung was congested. The left lung was also congested and its pleural sac contained about 7 ozs. of fluid. At the root of the left lung there was a new growth about 3 ins. in all diameters. Despite the fact that it surrounded the vital structures entering the organ, it did not appear to have interfered with their functions.

The primary growth was in the pancreas.

*Commentary.*—The case is interesting for the following reasons:—

(a) The onset of the "acute pleurisy" with elevation of temperature and subsequent defervescence and apparent improvement in the condition of the patient.

(b) Absence of pressure signs in connection with the secondary growth.

(c) No compression of bile duct, hence absence of jaundice.

(d) The patient showed little or no emaciation.

#### X.—FROM THE LANCASHIRE COUNTY MENTAL HOSPITAL, WINWICK, WARRINGTON.

*General Report.*—Communicated by Dr. J. ERNEST NICOLE, D.P.M., Medical Superintendent.

##### A.—Routine Laboratory Work.

Urine examinations: general, 3,892; microscopic, 1,516; estimations, 17; bacteriological, 252. Blood examinations: counts, 34; estimations, 16; micro-Meinicke, 207; micro- and macro-Meinicke, with routine and presumptive Kahn, 178; Wassermann, 10; Widal, 247; malarial films, 1,332; cultures, 7. Spinal fluid examinations: complete (Kahn, cell-count, globulin test, protein estimation and Lange), 77. Other fluids, various, 8. Stomach contents, 9. Milk and food, 4. Bacteriological examination: pus, etc., 38; throat swabs, 148; sputa, 67; faeces, for T.B., 118; faeces for typhoid and dysentery, 1,150; faeces for agglutination tests, 336; other faeces, 21. Vaccines 6. Histological examinations, 17. Photographs, 346. Post-mortem examinations, 51 (40 per cent. of deaths).



## B.—Publication.

*Pregnancy in General Paralysis of the Insane.* By Dr. Margaret A. Quine, D.P.M. (*Lancet*, June, 1937).

Two cases included in last year's report.

## XI.—FROM THE BANSTEAD (LONDON COUNTY) HOSPITAL, SUTTON.

*General Report.*—By Dr. A. A. W. PETRIE, F.R.C.P., F.R.C.S.E., D.P.M., Medical Superintendent.

*Laboratory Work.*

The routine work of the laboratory is increasing. A considerable amount of work has been done in identifying cases of Sonne dysentery, which has occurred sporadically in various wards of the hospital, and also among the staff who live in the neighbourhood.

The routine work of the laboratory is summed up as follows :—

Urine tests, 4,618; faecal plating for typhoid and dysentery, 1,766; sputum tests for T.B., 407; Widal agglutination tests for typhoid and dysentery, 859; blood cultures for enteric groups, 72; throat swabs for K.L.B. etc., 112; cultures for K.L.B. and pneumococcus, 128; blood counts, 79; general blood slides (stained and examined), 121; faecal tests ? occult blood, 16. Blood : sugars, 41; ureas, 38; sedimentation tests, 50; P.H. urine tests, 30; blood grouping, 24; gastric analysis (contents), 5; urea clearance tests, 4; Van den Bergh's tests, 19; C.S.F. for cells, cultures and Lange, 11; Pleural fluids for culture and slides, 15; other fluids examined, 7; cultures from cath. specimen urines, 98. Post-mortem examinations, 109 (82 per cent. of deaths).

At Central Laboratory :—Blood Wassermann tests, 193 M.; 235 F.; 428 T.; (positive, 15 M.; 31 F.; 46 T.); c.-s. f. tests, 20 M.; 7 F.; 27 T.; (positive, 4 M.). Histological reports, 35.

*Treatment of Schizophrenia by Cardiazol Therapy.*

The especial work of the medical staff has been the treatment of Schizophrenia, and three members of the staff have studied Insulin Shock Therapy in Vienna, and at Munsingen in Switzerland, and it is still hoped to utilize this experience in the treatment of the patients.

The principal activity has, however, been in *Cardiazol Therapy*, and 97 cases have been treated with encouraging results.

About 2,000 seizures have been induced, and a table of results is attached. Nearly half the cases (47 out of 97) have remitted or greatly improved. As to how far the greatly improved class will ultimately become fit for discharge will prove the success of the treatment, and it is too early to express a proper opinion as to this.

Thirty-four out of the 49 cases of less than 2 years' standing have remitted or are much improved, and that two-thirds of a group of cases of Schizophrenia should so improve is a remarkable advance on the numbers likely to remit by merely expectant measures of treatment.

In cases of over 3 years' standing, the number of those recovered or greatly improved sharply declines, but 7 out of 13 cases of up to 3 years' standing have greatly improved. After 5 years cases naturally tend to be chronic, and to show no improvement, but even in this category, 3 cases have shown marked improvement.

The stimulation to metabolism has been marked, and a general physical improvement has resulted, and even in numbers of cases who have not improved mentally, an increase in weight and marked physical improvement has been noted.

Although katatonic schizophrenics have been described as the more amenable to cardiazol therapy, some cases of paranoid schizophrenia have



also benefited. The treatment has also proved useful in one or two cases in settling down cases of acute excitement, who were tending to exhaust themselves.

Generally speaking, the treatment has given most promising results, not merely in recent cases, but in improving the condition of chronic cases both mentally and physically.

It is far too early to dogmatise from the figures quoted, especially as in a number of cases the courses of treatment are far from complete, but despite some relapses, the results so far appear promising.

*Table of Cardiazol Treatment.*

Result	Duration of Psychoses.						
	6 months	12 months	2 years	3 years	5 years	5 + years	Total
Complete remissions	7	5	1	0	0	0	13
Much improved	10	5	6	7	3	3	34
Improved ...	2	2	4	3	2	11	24
Not improved	4	1	2	3	2	14	26
Total ...	23	13	13	13	7	28	97
*Physically improved ...	13+	10	5	10	4	5	—

\* Note —This figure might be higher, if all factors were considered.

#### *Publication.*

“Mental Evidence of Physical Disease.” By Wm. McCartan, M.D.Belf., M.R.C.P.Lond., D.P.H., D.P.M. (*Medical Press and Circular*, December 29th, 1937).

### XII.—FROM THE BEXLEY (LONDON COUNTY) HOSPITAL, BEXLEY, KENT.

*General Report.*—By Dr. G. CLARKE, Medical Superintendent.

#### *A.—Laboratory Work.*

The following is a summary of laboratory work carried on during the year :—

*Biochemistry.*—Urine examinations, 1,081; blood sugar estimations, 50; blood urea estimations, 9; Van den Bergh tests, etc., 14; c.s.f. analyses, 3; analysis of gastric contents, 11; occult blood, 25. *Bacteriology:* Faeces, 423; urine, 302; sputa, 116; pus, 28; blood, 5; swabs, 26; agglutinations, Widal's, etc., 126; demonstration of parasites, 8. *Haematology:* Total counts, 187; differential counts, 173; reticulocyte counts, 4. *Histology:* Preparation of tissues for sections, 183; museum preparations, 14. Post-mortem examinations: 65 (61 per cent. of deaths).

#### *B.—Cardiazol Convulsion Therapy.*

Cardiazol treatment was started at the end of June and is now being carried out in 4 departments of the hospital. The treatment has thoroughly justified its use, and there can no longer be any doubt of its value.

Completed courses have been given to 71 patients, while 42 are now under treatment. In several cases treatment was stopped after a few injections



for various reasons, e.g. intercurrent illness, inadequate veins, absolute refusal or departure of voluntary patients, etc. These are not included in the tables.

TABLE I.  
*Completed Courses.*

Duration of illness.	Discharged or Departed. Recovered, or on trial.	Good remissions still in hospital.	Great Improvement.	Slight Improvement.	No Improvement.	Total.
Under 6 months	4	3	1	1	1	10
6-12 months	2	1	1	1	1	6
1-2 years ...	6	0	4	1	4	15
Over 2 years	6	3	8	8	15	40
	18	7	14	11	21	71

In Table II the figures are brought into line with Müller's generally accepted method of representing results of treatment. A very high standard for remissions is adopted.

TABLE II.

Duration of illness.	Remitted.	Non-remitted.	Total.
Under one year ... ..	10 (62·5%)	6	16
1-2 years ... ..	6 (40%)	9	15
Over 2 years ... ..	9 (22·5%)	31	40
	25 (35%)	46	71

Apart from the good recovery rate of cases under a year's duration, which is generally agreed to be between 60 per cent. and 70 per cent. with the use of either insulin or cardiazol, acceleration of recovery with consequent diminution of time spent in hospital is a feature of the treatment.

Possibly the most satisfactory effect of cardiazol is upon the more chronic subjects. Many cases of over 3 years' and even of over 5 years' duration, whose prognosis had been considered almost hopeless, have changed out of all recognition, reverting from stuporose, refractory or resistive subjects requiring much nursing attention, to relatively independent, occupied and useful patients. Nearly all the patients included in the "Great Improvement" column of Table I are examples of this change, but are, nevertheless, placed in the "non-remitted" column of Table II. In many of the chronic cases, treatment is followed by great improvement, but relapses, which are quickly relieved by a few further convulsions, tend to occur. For this reason the experiment of inducing one or two fortnightly convulsions with the hope of preventing relapses is being tried in some of these cases.

Apart from schizophrenics, 3 cases of mania and 2 of severe depression are in course of treatment. Both the depressed subjects are responding excellently, while 2 of the manic patients are improving. A severe and chronic hysteric has been discharged, apparently cured, after 7 convulsions.

Details of technique, contra-indications, etc., as well as the differential prognoses of the various types of schizophrenia have been discussed in a



paper by Dr. L. C. Cook, Deputy Medical Superintendent of the hospital, which is shortly to be published in the *Proceedings of the Royal Society of Medicine*.

So far, well over 2,000 major convulsions have been induced without encountering any dangerous or even really alarming incidents. The apprehensiveness and distress sometimes associated with the injections can be largely eliminated by premedication with hyoscine and morphia.

### XIII.—FROM THE CANE HILL (LONDON COUNTY) HOSPITAL, COULSDON.

*General Report.*—By Dr. G. A. Lilly, M.C., D.P.M., Medical Superintendent.

#### *Laboratory Work.*

The following is a summary of the routine laboratory work carried out during the year :—

Faeces and urine : typhoid and diphtheria, 240; blood and tuberculosis, 80. Urine : cultures, diastase, acetan, and microscopical, 460; general tests, 1,400. Blood : complete counts, 162; complete sugars, 15; cultures, 6; ureas, 9; sedimentations, 2; Widal's, malaria, bromides, 9; platelets, fragility, 7; throat swabs, 7; other swabs, 13; sputums, 53; C.S.F.-general, 4; stomach contents—test meals, 16; Van der Bergh's test, 4; abdominal and thoracic fluids, 10; histological specimens, 37. Blood C.S.F. to Maudsley hospital, 316. Post-mortems, 84 (75 per cent. of deaths).

*Convulsion Treatment of Schizophrenia.* By Dr. E. N. BUTLER, D.P.M., and Dr. A. WALK, D.P.M.

Treatment by cardiazol was commenced in November, 1937, and at the end of the year six patients were undergoing treatment. At the time of writing the report, only 1 of these had completed the full course of treatment; the results so far obtained go to confirm the opinion generally held that cardiazol is of definite value in producing improvement, even in long-standing cases in whom complete remission can hardly be expected.

*Prolonged Narcosis.* By Dr. J. R. MURRAY, D.P.M., and Dr. A. WALK, D.P.M.

Prolonged narcosis, using a combination of somnifaine and paraldehyde was carried out in 9 cases during the year.

The impression gained from these and cases treated in previous years is that the best results are obtained in patients showing much agitation and over-activity, irrespective of the psychiatric diagnosis. Cases of acute schizophrenic excitement with impulsive or self-destructive tendencies, otherwise unmanageable, have undergone a change of phase and become tractable following narcosis.

*Bromide Intoxication.* By Dr. A. WALK, D.P.M.

Since August, 1936, the blood bromide level has been estimated in all new admissions. A large number of cases were found to have high bromide levels; the significance of this could only be assessed in conjunction with the clinical picture.

The following criteria were adopted :—

- (1) Blood bromide level of over 150 mg. per 100 c.c.
- (2) Occurrence of confusional state or of a confusional element in a patient's psychosis which cleared up on treatment.

In 4 cases bromide intoxication was considered to be the sole cause of the psychosis :—

- (1) M. S., female, aged 62; admitted 23.12.1936.

Had a long history of pain in the shoulder and back for which various treatments had been given. Had become a morphine addict. Recently in a hospital for nervous diseases in London where she had been given large doses of chloral and bromide. Developed an acute confusional state.



On admission was disorientated and restless; speech much impaired; tremulous; insteady gait; general toxic appearance. Blood bromide 250 mg.

Immediate improvement with treatment by sodium chloride; discharged recovered two months after admission.

(2) L.W., female, aged 38; admitted 1.3.37.

Neurotic subject liable to bouts of alcoholism. Three months before admission she was placed in an inebriates' home under a probation order. Treated with a bromide mixture while in the home. Developed an acute confusional state with much agitation and visual hallucinations.

On admission intensely confused, with tremor, impaired speech and unsteady gait, and still hallucinated. Blood bromide 360 mg.

Improved spontaneously during first fortnight; at this stage, owing to an error, sodium bromide was given her for 9 days instead of sodium chloride and this was followed by a relapse into confusion; when the error was rectified, she improved greatly and showed no further abnormality other than slight nervousness and lack of confidence. Discharged recovered 5 months after admission.

(3) H.C., female, aged 64; admitted 14.10.1937.

History of hypochondriacal tendencies with nervousness and insomnia for many years, during which she had attended several hospitals and had received bromide treatment. A week before admission became extremely restless, excited and noisy.

On admission was confused, disorientated, with hallucinations and vague persecutory delusions; tremulous and unable to walk. Blood bromide 275 mg.

Improved rapidly and was sent out on trial two months after admission.

(4) J.F., male, aged 36; admitted 9.6.1937.

A neurotic subject; had had a temporary confusional psychosis 15 years previously, following head injury. Recently developed a spasmodic torticollis of psychogenic origin and entered a hospital for nervous diseases in London for treatment. Developed a confusional state with restlessness and somatic hallucinations.

On admission toxic appearance with motor weakness and tremor; rather less confused than at time of certification, but still showed fragmentary delusions and hallucinations. Blood bromide 175 mg.

Confusion cleared up to a large extent under treatment with sodium chloride, but a residual suspicious and tearful state with occasional hallucinations persisted for some weeks. Discharged recovered 4 months after admission.

In 10 cases bromide intoxication was considered to be a contributory factor inducing a confusional element, which cleared up while the patient's underlying psychosis persisted. Of these 4 were schizophrenic, 2 melancholic, 3 cases of arteriosclerotic dementia, 1 a case of Huntington's chorea, and 1 a case of organic dementia in which the other causal factors were head injury and alcoholism.

It would seem that, in spite of the publicity given to the subject of bromide intoxication in the last few years, cases still occur from time to time in which severe confusional states are precipitated by bromide given medically.

#### XIV.—FROM THE CLAYBURY (LONDON COUNTY) HOSPITAL, WOODFORD BRIDGE.

*General Report.*—By Dr. G. F. BARHAM, Medical Superintendent.

##### *A.—Laboratory Work.*

The following is a summary of the routine work carried out during the year. Total number of specimens examined, 10,572 :—

Urines : routine, 4,883; bacteriological, 645; pH., 119; T.B., 18. Faeces : bacteriological, 2,620; T.B., 23; occult blood, 23. Blood : sugar estimations, 642; counts, 691; urea, 42; films (for parasites), 90; bromides, 368; cultures, 10;



Van den Bergh tests, 5; calcium estimations, 16; sedimentation rate, 2; reticulocyte counts, 20; platelet counts, 5; fragility tests, 1; clotting time, 1. Pus and body fluids, 36. Scrapings for tinea, 36. Throat swabs for K.L.B., 47. Vaginal swabs for G.C., 6. Rectal swabs for dysentery, 2. Widal agglutination tests, 32. Fractional test meals, 14. Vomit for general examination, 12. Post-mortem specimens, 12. Urea concentration tests, 24. Cerebro spinal fluid cell counts, 4. Urea clearance tests, 6. Post-mortems, 87 (71 per cent. of deaths).

#### B.—Research Work.

(1) The sugar tolerance curve of cases of melancholia is being investigated by Dr. G. F. Peters, D.P.M. The majority of cases have shown a blood sugar curve approximating to the diabetic type, having a high maximum point and delayed return to fasting level. The series appears to indicate that increased tolerance is a frequent feature of these cases.

(2) Dr. Peters is taking a long term follow-up after discharge of the results of assisted respiration, previously referred to, in cases of morbid seclusiveness and torpidity. The effect of assisted respiration on the reaction of the urine has also been investigated in a number of cases.

(3) By Dr. D. E. Sands, M.R.C.P.Ed.

(a) The problem presented by the carrier population of the hospital, of which there are now 22 cases of typhoid and 2 of dysentery, is under continued investigation, and the effect of drugs of the sulphonamide group on the excretion of typhoid organisms in these carriers is being observed.

(b) In view of the unsatisfactory methods of bromide medication at the present time, an attempt is being made with the aid of blood bromide estimations to improve the method of administration by finding out the exact dosage necessary to produce the required effect in a given case, and to ascertain whether such an effect can be obtained without maintaining the blood bromide at a potentially toxic level. The scheme covers both epileptic and non-epileptic cases and is designed to give a more individual form of treatment.

A preliminary survey of 130 cases of bromide medication has been carried out. Blood bromides were performed in every case, and those who showed a level of 200 mgms. per cent. or over were examined for evidence of toxic symptoms. Wide variations in tolerance were found, some patients being able to tolerate a level above that usually accepted as implying toxæmia, viz. 200 mgms. per cent., and yet show few or no symptoms of over-dosage. In the whole series the average level was about 125 mgms. per cent., the individual variations being from 25 to 325 mgms. per cent.

This investigation is a preliminary survey, and more definite results are expected from its continuation.

(4) Cardiazol convulsion therapy is being given to an increasing number of cases, mainly of the schizophrenic type, in both male and female divisions of the hospital. Numerous remissions of an incomplete type have been induced, but, owing to the very recent inception of the treatment, no conclusions are being drawn at present.

#### C.—Publication.

“The Treatment of Epilepsy with Psychosis by Prominal.” By Dr. D. E. Sands.

The subject of this publication has been referred to in a former report. The investigation showed that in a series of twenty-six cases, a definite reduction in fits was effected in 14, with varying degrees of improvement in behaviour, occupational ability and physical health. In the remainder, there was no change or the drug proved itself less effective than luminal or bromide. *Journal of Mental Science*, November, 1937.



## XV.—FROM THE ST. EBBA'S (LONDON COUNTY) HOSPITAL, EPSOM.

*General Report.*—By Dr. L. H. WOOTTON, M.C., D.P.M., Medical Superintendent.

## A.—Laboratory Work.

The following is a summary of the examinations carried out in the laboratory during the year.

Urines (all examined microscopically), 1,479; complete blood counts, including haemoglobin estimations, colour index and average diam., 53; calcium estimations, 47; bromide estimations (blood), 93; Van den Bergh's test, 3; blood sugar estimations, 68; blood urea, 12; fractional test meals, 5; bacteriological examination of throat swabs for K.L.B., 22; examination of vomit, 3; bacteriological examination of faeces (typhoid and dysentery), 8; examination of faeces for tuberculosis, 31; examination of pleural exudate, 3; faeces (occult blood), 5; reticulocyte counts, 5; fragility test, 5; sedimentation rate, 1; clotting time of blood, 1; bleeding time, 1; thrombocyte count, 1; pus, 3; sputa, 17; urine for tuberculosis, 14; urine—Vitamin C estimations, 350.

Post-mortem examinations, 18 (56.25 per cent. of deaths).

All Wassermann specimens and C.S.F.s, in common with other hospitals of the L.C.C. (Mental Hospitals Department) are sent to the Central Pathological Laboratory, Maudsley Hospital.

## B.—Publications.

“Blood Bromide Investigations in Psychotic Epileptics.” By Dr. L. MINSKI, M.R.C.P., and Dr. J. B. GILLEN, D.P.M. *British Medical Journal*, October 30th, 1937, Vol. II, p. 850.

The blood bromide levels of 32 chronic epileptic psychotic patients who had been having bromide for some considerable time were investigated. Although comparatively high levels were found in many cases, no obvious instances of true bromide intoxication showing delirious or confusional reactions were discovered. Omission of the bromides and the prescribing of sodium chloride to help in their elimination produced no improvement in the mental pictures, in spite of the blood bromide level falling to normal, nor was there any marked increase in the number of fits which in some cases were notably reduced.

“A Note on Some Vasomotor Disturbances in Schizophrenia.” By Dr. L. MINSKI, M.R.C.P. *Journal of Mental Science*. July, 1937.

The serum calciums of 10 schizophrenic patients who had cyanosed extremities were investigated, and were within normal limits, even though they were on the low side. The fragility of the red cells and viscosity of the blood were normal. Intramuscular injections of parathormone and glucocalcium produced no change in the cyanosed parts. One patient from whom sections of the lumbar sympathetic nerves were removed showed marked improvement in the lower extremities, while the upper ones remained cyanosed. It would appear that the fundamental disturbance on the physical side in schizophrenia is a clumsiness of adaptive responses to changed conditions, and that the vasomotor disturbances are due to dysfunction of the organism, together with an inadequate autonomic nervous system.

“Temporary Treatment. An Analysis of thirty Cases.” By Dr. L. H. WOOTTON, M.C., D.P.M., and Dr. L. MINSKI, M.R.C.P. *Journal of Mental Science*, July, 1937.

An analysis of 30 patients admitted under Section 5 of the Mental Treatment Act, 1930, showed that 20 were suffering from schizophrenia, and of the remainder 6 were confusional or delirious states. It is important to have the cases examined by competent psychiatrists, as only cases with good prognoses are suitable for temporary treatment. The total period of 12 months appears



to be too short in many cases, and might well be extended up to 2 years. When a patient becomes and remains volitional alternative treatment must be arranged by the end of 28 days. Many cases are unwilling to remain on a voluntary basis as they may look upon the hospital from the wrong point of view, whereas if this period were increased up to 2 months the doctor may have gained the patient's confidence by this time, and the patient agree to remain voluntarily and complete the recovery. With these modifications, Section 5 of the Mental Treatment Act is of value in those psychoses where volition is absent and the prognosis is good.

“Vitamin C Estimation in the Urine of Patients Suffering from Nervous and Mental Diseases.” By Dr. L. MINSKI, M.R.C.P., and Mr. N. D. CONSTANTINE (Technical Assistant).

The urines of 50 patients suffering from various forms of psychosis and neurosis were examined quantitatively for vitamin C. The urines of a number of patients suffering from physical disorders such as tuberculosis, epilepsy, gastric ulcer, etc., were also examined. On the whole the vitamin C excretion was within normal limits, excepting in a few cases where the weight was low and the vitamin content of the urine was correspondingly low also. The estimations were always done after the patients had been in hospital for a week or two, in order that malnutrition before admission could be excluded. The work is being continued on a larger scale and an attempt is to be made to correlate haemoglobin deficiency with a diminished excretion of vitamin C in the urine. (Awaiting publication.)

#### *C.—Research Work.*

Research work is being continued on the Vitamin C content of the urine of patients suffering from different forms of mental disorder, while investigations on the results of treatment with cardiazol, sodium amytal, acetyl choline and sex hormones are being carried out.

#### XVI.—FROM THE ST. BERNARD'S (LONDON COUNTY) HOSPITAL, SOUTHALL.

*General Report.*—By Dr. J. B. S. LEWIS, D.P.M., Medical Superintendent.

##### *Laboratory Report.*

The following is a summary of the work done in the pathological laboratory during the year:—

Urines, 1,951; faeces: dysentery and typhoid, 88; examinations for T.B., 49; sputa, 78; throat swabs, 72; various scrapings and smears, 88; malarial blood films, 42; agglutination reactions, 21; estimation of bromide in blood, 234; blood sugar curves, 25; urea estimations (blood), 25; fractional test meals, 8; urea clearance test, 3; enumeration of cells and differential count, 152; blood sedimentation rate, 382; blood cultures, 4; cultures from sinuses, 42; autogenous vaccines, 2; histological sections, 40; post-mortem examinations, 100.

##### *Treatment of Schizophrenia by Cardiazol.*

Dr. H. T. Retallack-Moloney, D.P.M., visited Prof. von Meduna's clinic at Budapest and began treatment by cardiazol injections in July. So far 28 cases have been treated; of these 5 have been discharged recovered and 1 is at present on trial; 14 more have shown great improvement and are still under treatment; 7 have shown no improvement and 1 failed to show any reaction.

Both recent and chronic cases have been selected; of these the former have proved the more favourable; cases of over 5 years' standing have shown little or no improvement.



*Treatment of Schizophrenia by Hypoglycaemia Shock.* By Dr. L. W. RUSSELL, D.P.M.

Twenty-six cases of schizophrenia, females, have been treated by the repeated induction of hypoglycaemia; particulars are set out in the following table and reports of four difficult cases given.

Case.	Age.	Type.	Length of treatment.		Fits.	Result.
			Weeks.	Comas.		
<i>Under six months—</i>						
B.B.	22	C	13	69	—	o
<i>Six months to one year.</i>						
M.C.	21	C. & P.	7	38	—	† Recently relapsed.
W.W.	25	C	6	36	1	†
F.G.	24	P	3	11	—	o. Refused treatment.
N.R.	25	C	4	17	—	†
P.Z.	38	C & P	6	31	—	†
R.K.	32	P	13	67	o	*
<i>One to one-and-a-half years.</i>						
D.T.S.	19	H & C	6	34	—	* Relapsed after 6 months.
				4	—	See case report.
M.B.	26	P	6	26	—	†, now only *.
D.B.	22	C	15	90	—	o. Was †.
			5	21	—	o
<i>One-and-a-half to two years.</i>						
J.V.	19	C	16	70	—	* Not yet discharged.
C.B.	27	P	4	18	—	* Later pulmonary T.B.
G.G.	25	P	7	37	—	o
<i>More than two years.</i>						
S.K.	29	P	12	60	1	*
P.R.	26	C	3	10	—	o. Was *. Ill health.
E.H.	41	C	8	45	—	o. Possibly worse.
R.G.	23	C	33	190	1	o
B.A.	27	C	10	41	—	o. Was *.
E.D.	31	H	4	15	—	o
D.S.	23	C	3/7	2	—	Died. See case report.
P.G.	33	P	7	37	—	*
D.D.	32	P	6	30	3	o. Was †.
V.S.	30	C	2	0	21	o. See case report.
N.W.	31	C	19	84	1	o
J.R.	24	C	12	57	—	†

P = Paranoid. C = catatonic. H = hebephrenic.

Results according to Muller's classification as given by James, Freudenberg and Cannon, *Lancet*, 8.5.1937.

\* Indicates partial remission; able to work but symptoms persist though they do not interfere with ordinary life.

† Indicates remission but one symptom remaining.

‡ Indicates full remission, insight, no schizophrenic symptoms.

These results are in fair agreement with those of other workers; improvement is more likely in cases of less than two years' standing. Latterly the use of cardiazol during light hypoglycaemia has been found to be of value in cases which were not responding to insulin alone.



Ordinary difficulties met have included epileptiform fits, laryngeal spasms and other respiratory embarrassments, cardiac irregularities, "after shock." These have not caused great anxiety but delayed wakening after coma has at times been very troublesome. One death has occurred as a direct result of insulin therapy; the case notes following include this, an alarming reaction to a fairly small dose of insulin, a case of status epilepticus developing four hours after termination of coma and a case of long delayed awakening after coma.

### *Case Reports.*

In discussing cases it will be convenient to take it as understood that numerous intravenous injections and feeds of glucose were given.

Case 11.—D. S., admitted 7.3.35. Female, stuporose-catatonic of two years' standing. Asthenic type, but general investigation showed no abnormality, though blood urea was not estimated, as has since been customary. Thirty units of insulin produced no undue reaction; 40 units on the second day produced short uneventful light coma and on the 3rd day 45 units were given. Light coma commenced three-and-a-half hours after the insulin was given and was allowed to continue one-and-a-half hours, till noon. The corneal reflex was by then absent. As she was not awake by 12.30 p.m. emergency measures were started. Pulse rate rose to about 140 during the afternoon; she remained unconscious but was restless. Adrenalin, coramine and strychnine had no effect. Inhalations of oxygen with 10 per cent. carbon di-oxide were used. The corneal reflex was sometimes present. Intravenous strophanthin did not affect the pulse rate but there was a gradual fall in this rate during the night and at 6 a.m. the next day she was thought to be recovering, the pulse being 112. At 7.45 a.m., however, she collapsed and shortly died; adrenalin was used at the time.

In reviewing this case the post-mortem findings are of interest; "hyperaemia of cerebrum and pons; bloodstained cerebrospinal fluid; acute pulmonary oedema; chronic interstitial nephritis." The kidney lesion would have been a contra-indication to treatment if found. I do not now think that the large amount (490 cc.s.) of 33 per cent. glucose solution given intravenously in this case was desirable or served any useful purpose; its bulk and osmotic effect probably contributed largely to circulatory failure. Later knowledge would also suggest lumbar puncture, vitamin B<sub>1</sub>, intravenous calcium chloride, salines and blood transfusion as valuable therapy. The prolongation of coma to one-and-a-half hours so early in treatment was unwise and the onset of coma on the second day I should now regard as an indication for reduction rather than increase of dosage.

Case 15.—M.W. Admitted 19.3.37. Female, aged 29, in catatonic stupor for one week. Given 30 units of insulin followed by glucose drink after 1½ hours. Overzealous feeding with egg and milk caused vomiting half an hour later and the pulse rate soon rose to 132. The usual measures failed to affect the tachycardia though she was fully awake. At 3.45 p.m. lumbar puncture produced bloodstained C.S.F. under pressure. Vomiting persisted in spite of atropine. Pulse rate rose to 156; it was not affected by pressure on the carotid sinus. Systolic blood pressure fell from 110 to 100 mm.Hg., diastolic readings were ambiguous. Temperature rose to 102° in the evening. Subcutaneous salines were given. Tachycardia persisted through the night and at 11 a.m. next day pallor, restlessness and apprehensiveness lead to the giving of morphia, gr. 1/6th. The pulse rate fell from 150 to 130 in the next four hours and further morphia was given, also Nativelle's digitalin. These were repeated and the temperature returned to normal, followed more slowly by the pulse rate. Urine was suppressed until the third day. By the sixth day she was fairly well and showed reasonable affect for the first time since admission; she recovered completely from her stupor in two months and was discharged. This case is not included in the list of results.

Here morphia appears to have counteracted terror.

Case 20.—V.S. Admitted 12.4.33. Female, aged 30, catatonic excitement. Did not have coma and started the third week with 170 units of insulin. She became very noisy and excited in the fourth hour but quietened before having glucose at the end of the fifth hour. Soon after was most apprehensive, screaming and restless, but became quiet and was well and reasonable by 4 p.m. At 4.30 p.m. an epileptiform fit was reported; there were not any hypoglycaemic symptoms otherwise, but another fit with vomiting occurred at 4.50 p.m. This was short, the clonic phase being a mere trembling. Morphia gr. ¼ was given but eight more fits,



increasingly severe, occurred by 6.30 p.m., by which time she was comatose, pale and sweating. Intravenous glucose had been given without effect. 4 grms. of sodium amytal were given intramuscularly as she did not seem fit for intravenous amytal. Fits however continued, about every 10 minutes and lasting about 4 minutes each, with cessation of heart beat and respiration such that artificial respiration was often needed. At 10 p.m. she was in a very poor condition, pale, sweating, cyanosed deeply and having very strong fits. Luminal was given intramuscularly and Betaxin (vitamin B<sub>1</sub>), both intravenously and intramuscularly. Lumbar puncture immediately afterwards only produced 3 ccs. of clear fluid, not under pressure. The fits were replaced (in the 10 minute series) by slight tremblings, which were seen 3 times. Colour immediately improved though she did not wake; she became restless at midnight and was given further sodium amytal, finally waking at 4 a.m. She showed some improvement at first but is now as bad as ever.

The vitamin B appears to have been the active agent in this case as the effect was instantaneous and seen before the lumbar puncture was done.

Case 9.—D.T.S. Admitted 11.12.36 after 1 year V.P. (Ewell). After 6 weeks of treatment made a good recovery from her catatonic excitement and returned to work (domestic service) on 12.4.37. Readmitted 25.10.37 in violent catatonic excitement. On the 8th day of resumed treatment, 11.11.37, light coma occurred at 11 a.m. after 130 units at 7 a.m.; this was easily terminated by glucose at 12.10 p.m. On 12.11.37 she had 140 units at 7 a.m. and light coma ensued at 10 a.m. At 10.30 had a short bout of "spasms." At 11.30 the corneal reflex was sluggish and glucose was given at 11.50. The corneal reflex was absent at noon; she was in light coma at 12.30 p.m. and intravenous glucose was given, without effect. At 1 p.m. Betaxin was given, rebreathing and oxygen and carbondioxide inhalations were started; adrenalin had no effect and at 1.40 lumbar puncture had no effect (the fluid was clear, not under pressure and needed compression of the jugulars to obtain 10 ccs.). After further intravenous glucose at 2.10 she became restless and the plantar reflex became flexor for the first time. Temperature rose to 100.4° F. and pulse rate was between 90 and 100. Morphia was given at 2.30 and at 5 p.m. for restlessness.

At 9 a.m., 12.11.37, pulse rate had risen to 120. She was not rousable but swallowed a little fluid placed in her mouth. Gastric juice was alkaline and 23 ounces were taken from the stomach before giving glucose, ammonium chloride. Intravenous glucose and betaxin were also given and CO<sub>2</sub> and O<sub>2</sub> inhalations were continued. Pulse varied about 130 through the day and at 11 p.m. the temperature was 105°, gross dehydration being present.

On the 13th she was unconscious, restless, making cries and moving her head as though there was some cerebral irritation. At 10.15 a.m. 20 ccs. of saline were given intravenously and continuous saline started subcutaneously. Gastric juice was still alkaline and ammonium chloride was given with the regular nasal feeds. The pulse varied round 150 in spite of Nativelli's digitalin. At noon her blood sugar was 280 mg. per cent., so insulin 10 u. was given, and repeated at 2 p.m. She vomited repeatedly and lumbar puncture was performed but no C.S.F. was obtainable. Salines were continued through the day and at 5 p.m. she was resting, of a good colour and had a stronger pulse, rate 132; temperature normal, 3.4 ccs. of coramine were given 4 hourly and by 9 a.m. on the 14th the pulse rate was 120; she smiled when spoken to but lay with eyes closed, mute and moving her head listlessly from side to side. The gastric juice was again acid. At noon on the 14th blood sugar was 148 mg. per cent. She began to pass large quantities of urine. At 10 p.m., however, her pulse was again 130 and morphia was given (she had an illness in 1934 consisting solely of tachycardia and polyuria).

At 9 a.m. on the 15th temperature was 103°, pulse 130, blood sugar 140 mg. per cent. There were fine crepitations at the bases of the lungs. Morphia again given. At 3 p.m. subcutaneous salines again started for marked dehydration. Oxygen was given.

On the 16th pulse had fallen to 104 and temperature to 101°.

On the 17th she was almost fully conscious though she did not talk for 3 weeks and then started with a short period of "baby talk." Pulse and temperature were normal.

She is now quiet and talks reasonably with good effective responses but refuses to occupy herself at all. Pupils are unequal.



This case shows increased sensitivity to insulin in a violently excited patient, seen also in other cases. It is evidently unsafe to give such cases long comas in the hope of quietening them.

Hyperglycaemia was marked though coma persisted; betaxin did not bring about the sugar usage which was expected; alkalosis was also present. In the treatment of this condition the combating of dehydration by large quantities of saline appears to be important.

A report of the first 8 cases treated here by this method was published in the *Lancet* of March 27th, 1937. The summary is as follows :—

A report is given of 8 schizophrenics, 5 having a longer psychosis than 1½ years, treated by hypoglycaemic shock. All showed some improvement 2 with full remissions, 3 being much improved and 3 a little improved. There were 416 periods of hypoglycaemia in all, with only 3 seriously alarming incidents and 2 cases of “after shock”; there were no lasting untoward physical results. In general, the findings of continental investigators (as reported by Dr. Wilson) are confirmed, the results being less impressive probably on account of the more chronic nature of the cases treated.

Nine cases of schizophrenia and 1 of manic-depressive psychosis were treated by cardiazol shock therapy. Of the schizophrenics, 2 recent admissions made good remissions and were discharged and are now working; the others showed immediate improvement, some as far as full remission, but have since relapsed though 3 still show a little improvement. One case of 4 years’ standing had a course of insulin with little improvement and later a course of cardiazol with greater improvement and is now discharged, though by no means a good remission. The case of manic-depressive psychosis improved rapidly, having shown no improvement in the previous six months; she was discharged free from symptoms.

#### *Publication.*

“Impedance Angle Observations in Manic Depressive Insanity.” By Dr. M. A. B. BRAZIER and Dr. D. I. CAMERON. (Probably in *Journal of Mental Science*).

### XVII.—FROM THE HORTON (LONDON COUNTY) HOSPITAL, EPSOM.

*General Report.*—By Dr. W. D. NICOL, M.R.C.P., D.P.M., Medical Superintendent.

#### *Pathological Department.*

Analysis of pathological investigations :—

Urine examinations : routine, 3,202; sugar estimations, 732; for culture, 198 (3 positive for B. Typhosus) for estimation of vitamin “C” excretion, 46; for tuberculosis, 3; ? blood, 11; test for Urobilinogen, 20; urobilin, 20; methaemoglobin, 4; sulphaemoglobin, 2; Erlich’s Diazo reaction, 4; urea concentration, 2; diastase reaction, 1. Faeces : for culture (typhoid, dysentery group, 178); (1 positive dysentery, 3 positive typhoid). Examinations for tuberculosis, 25; (4 positive) blood, 13 (2 positive); estimation of fat content, 7; examination for bile, 5; parasites, 4. Blood : cell counts and haemoglobin estimation, 102; differential cell counts, 91; thrombo-cytes counts, 13; reticulocytes counts, 42; sedimentation rates, 128; cultures, 24; (2 positive B. typhosus) (1 positive, streptococci) (2 positive pneumococci) agglutinations, (Widal), 21; urea estimations, 15; urea clearance test, 6; sugar estimations and curves, 12; Laevulose tolerance tests, 5; Van-den-Bergh reactions, 14; icteric index, 14; quantitative estimation (Van-den-Bergh units), 14; calcium estimation, 4; bromide estimations, 12; phosphate, 4; chloride, 2; potassium, 2; uric acid, 1; bleeding time, 6; for pellagra, 3. Swabs : throat, 41; vaginal, 28; various discharges and sinuses, 18. Sputum : examination for tuberculosis, 50 (7 positive); for other pathogenic



organisms, 24; for culture ? T.B., 25; (4 positive) for culture ? other pathogenic organisms, 3. Typing of organisms: streptococci, 12; pneumococci, 8; cerebro-spinal fluid, ? total protein, 3; chlorides, 3; sugar, 2; bacteriological examination, 1. Pleural fluid for chemical examination, 1; bacteriological, 1. Blister fluids for culture and general examination, 5; test-meals—routine examinations, 6. Routine histological examinations, including brain, and spinal cord, 66; examination of brain tissue for iron reaction, 35; for spirochaetes, 35; examination of brain tissue obtained by orbit puncture, 12. Histo-pathology, research under the direction of Dr. A. J. Galbraith, 800 specimens. Post-mortems, 131 (73 per cent. of deaths).

#### *X-ray Department.*

This department continues to do radiography for the neighbouring London County Council mental hospitals.

The number of successful plates registered during the year 1937 was 1,155 and the total number of cases examined was 791; of these, 474 and 313 respectively related to Horton patients.

#### *Malaria Therapy Centre.*

In December, 1936, a further advance was made in the development of the malaria therapy centre at Horton. Previously the care of patients undergoing malaria therapy for G.P.I. was included as part of the routine work of one of the medical officers on the staff of the hospital. It was recognized, however, by the London County Council that much greater use could be made of the facilities offered by this unique centre and in December, 1936, a full time medical officer, Dr. E. L. Hutton, was appointed to be in charge of the malaria therapy and at liberty to devote herself to the many unsolved problems of neurosyphilis and its treatment. A full time clerk and suitable office accommodation was also provided. It was agreed in principle that patients suffering from neurosyphilis should be admitted to Horton or, if necessary, transferred from the other L.C.C. mental hospitals for treatment.

Further, a decision was made that the vacancy on the staff thus created by the new appointment should not be permanently filled, but that a medical officer should be seconded to Horton for a period of 1 year, so that he or she might become conversant with the methods of malaria therapy and with the most recent advances in the study of G.P.I. In February, 1937, Dr. A. J. Galbraith of St. Ebba's Hospital was accordingly seconded for 1 year. He had already spent three months under Dr. Alfred Meyer at the Central Pathological Laboratory, studying modern neurohistology and was thus able to undertake a more detailed histological investigation of G.P.I. brains than had hitherto been possible.

As the special research centre is practically a new feature in mental hospital administration, a great deal of time during the past year has necessarily been spent in developing well-organized and scientific methods, not only of investigation, but also of recording, indexing and collating the accumulated material.

In addition to this general work, particular attention has been paid to 2 problems: the number of patients suffering from G.P.I. who have received anti-syphilitic treatment, and the incidence of syphilis in the families of patients suffering from this disease. A paper bearing on these problems was produced by Dr. Nicol, who is in charge of the centre, and Dr. Hutton, and was published in the *British Journal of Venereal Diseases*, Vol. XIII, No. 3, July 1937.

Advantage has also been taken of the educational facilities offered by a centre of this sort, and demonstrations have been arranged for the D.P.M. course, the refresher course organised by the R.M.P.A. and mentioned in the twenty-third report of the Board of Control, and for the members of the Medical Society for the Study of Venereal Diseases.



As there is very close collaboration with the staff of the Ministry of Health who are in charge of the Malaria Laboratory at Horton and responsible for the malaria research work done there, a brief account of their work should be included in any report on the Horton Malaria Centre.

After the retirement of Colonel James in September, 1936, Professor Thomson of the School of Tropical Medicine was in charge of the laboratory until his untimely death in August, 1937. Since then the work has been under the control of Colonel Sinton, who has a Research Fellowship from the Royal Society.

The Ministry of Health is responsible for the transmission of infective material (blood and mosquitoes) to all parts of the British Isles. Centres similar to the one at Horton have been developed abroad in Dusseldorf in Germany, Bucharest and Jassy in Roumania, Rome, Antwerp and Amsterdam; and close contact is maintained with workers in these and in other places abroad. Post-graduate research workers have spent periods varying from a few weeks to a few months studying the work which is being done and the methods which are employed. There is also a liaison between the centre and the School of Tropical Medicine and Dr. Nicol lectures on induced malaria, demonstrations both clinical and parasitological being given at Horton.

Finally, mention should be made of the co-operation between the Horton malaria centre and the clinic held by Dr. Golla at the Central Pathological Laboratory, a co-operation which has been definitely to the advantage of both.

#### *Publications.*

After results of malaria therapy. W. D. NICOL and E. L. HUTTON. *Proc. Roy. Soc. Med.*, March 1937, Vol. XXX.

Neurosyphilis: Its Treatment and Prophylaxis. W. D. NICOL and E. L. HUTTON, *Brit. J. of V.D.*, Vol. XIII, No. 3, July 1937.

The provision of infective material for the practice of Malaria-Therapy in England and Wales. Lt.-Col. J. A. SINTON, I.M.S. *Office International d'Hygiene Publique*, October Session, 1937.

A technique for the inoculation of known numbers of sporozoites as an aid to malaria research. P. G. SHUTE. *Annals of Tropical Medicine and Parasitology*, Vol. 31, No. 1, April 8th, 1937.

The Morphology of the external spines of the Harpagoes of a single race of *Anopheles maculipennis* va. *atroparvus* and its value for diagnostic purposes. P. G. SHUTE. *Rivista di Malariologia*, Anno XVI 1937, S. 1, No. 3, pp. 199-201.

Report on a third visit to Roumania for the study of malaria. P. G. SHUTE. Health Organization, Malaria Commission, League of Nations. *C.H./Malaria/* 250. Geneva, November 25th, 1937.

#### XVIII.—FROM THE LONG GROVE (LONDON COUNTY) HOSPITAL, EPSOM.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following is a summary of the routine laboratory work carried out during the year.

Blood: agglutinations, 18; complete counts, 240; cultures, 10; sugar estimations, 48; urea estimations, 61; Van den Bergh's, cholesterol per cent., chlorides, 20; groupings, 15; sedimentation rates, 133. Faeces: bacteriological, 335; for T.B., 425; occult blood, 103; for ova and worms, 802. Sputum: bacteriological, T.B., 365; other organisms, 40. Urine: routine, 2,961; cultures, 42; sugar and acetone, 1,300; bacteriological (T.B.), 40; blood, urea per cent., bile salts and pigments, 20. Miscellaneous: fractional test meals, 7; scraping from skin and nails, 30; throat swabs, 11; pus films examined, 100; eye, urethral and vaginal swabs, 17; pleural fluids for organisms, cells and crystals, 8; Von Bonsdorf count and Houghton index, 6; c.s.f.: proteins, cells and chlorides, 10. Post-mortem and operation sections cut (frozen and paraffin) and examined, 60. Post-mortem examinations, 95 (80 per cent. of deaths).



## XIX.—FROM THE WEST PARK (LONDON COUNTY) HOSPITAL, EPSOM.

*General Report.*—By Dr. N. ROBERTS, O.B.E., D.P.M., Medical Superintendent.

*Cardiazol Therapy.*

The treatment of schizophrenia by cardiazol was commenced in July, 1937, by Drs. Harris and Kennedy and after the preliminary experimental stage is now being conducted by Drs. Harris and Birnie along more extensive lines.

*Publications.*

Late Results of Encephalitis Lethargica. By J. S. HARRIS, M.D. Edin., M.R.C.P. Lond., D.P.M., and H. ASTLEY COOPER, M.D., M.R.C.P., D.P.M. (*Medical Press and Circular*, 1937).

Convulsion Therapy in Schizophrenia. By ALEXANDER KENNEDY, M.D., M.R.C.P., D.P.M. (*Journal of Mental Science*, November, 1937.)

## XX.—FROM THE CENTRAL PATHOLOGICAL LABORATORY OF THE LONDON COUNTY MENTAL HOSPITALS.

*Report on Routine and Research Work.* By Dr. F. L. GOLLA, F.R.C.P., Pathologist to the London County Mental Hospitals and Director of the Central Pathological Laboratory.

*Central Pathological Laboratory.*

A certain amount of delay in the building and reconditioning operations prevented the laboratory from working at full capacity during the earlier months of the year under revision. At present the new laboratories are all in working order and the only department awaiting completion is that of the workshops. The need for facilities for the construction and repair of instruments which will be provided by the workshop has been greatly felt, the more so as the aid of the central laboratory is often sought for minor repairs to instruments belonging to the various hospital laboratories.

During the past year considerable progress has been made in the investigation of the electrical currents that may be led off from the brain even through the intact skull. This electro-physiological phenomenon is no longer one of purely academic interest but promises to be one of the greatest practical value. The investigations at the Central Laboratory were combined with others conducted in the wards of the Hospital for Nervous Diseases, Maida Vale, and it was found that the electrical currents led off from various areas of the brain showed striking abnormalities when the examining electrodes were placed over a cerebral tumour. A new method of investigation has thus been brought to bear on what is probably the most difficult problem in clinical medicine, the localization of tumours of the brain with a view to their subsequent removal. Pursuing the same lines of investigation the brain currents were explored in a number of epileptics from the Council's mental hospitals. It was found that in about 50 per cent. of these cases the existence of well-defined areas giving abnormal brain currents can be demonstrated. The application of this discovery is not so immediate as that leading to the localization of cerebral tumours, but once its true significance has been evaluated it should lead to results of the greatest importance in the prognosis and treatment of epilepsy.

The investigation at present proceeding on the pathological anatomy of certain types of mental deficiency are also giving results of great promise and interest. They appear to indicate that some forms of mental deficiency at any rate are not to be considered as manifestations of an inborn defective nervous system but may be attributable to dietetic and glandular conditions which are susceptible of prophylactic treatment.



The statistical investigation on the effects of treatment of general paralysis, a disease considered to be incurable up to a few years ago, have confirmed the optimistic impressions given by the 10 years' experience of malarial treatment in the Council's mental hospitals. The percentage cure of cases of general paralysis might easily reach 90 per cent. if cases were notified and treated at a sufficiently early stage.

### *Staff.*

Mr. C. Geary, who was in charge of the histological department, resigned his post after 40 years' service in the laboratory. During this period Mr. Geary had established a reputation as an able histologist that had spread far beyond the immediate milieu of the laboratory and he had been responsible for the technical execution of nearly all the researches associated with the late director, Sir Frederick Mott.

Dr. Alfred Meyer, who had previously worked with the well-known neuropathologist, Professor Spielmeyer, has been appointed with effect from July 1st, 1937, to the post of histologist to the laboratory.

The following additions were made to the establishment of the laboratory as from April 1st, 1936: 1 woman clerk; 1 laboratory assistant, grade I; 1 laboratory technician, grade I; 1 laboratory technician, grade II.

### *Routine Work.*

The routine work continues to increase and the following numbers of examinations made and reports furnished during the year ended December 31st, 1936, show an increase of 5,000 over those for the preceding year.

Special histological reports (includes 4 for the Maudsley Hospital)	146
Special investigations for all institutions	1,095
Routine and special investigations for the Maudsley Hospital (including Wassermann reactions; sera, 719; cerebro-spinal fluid, 100)	7,254
Wassermann reactions for all hospitals for nervous and mental disorders, transferred institutions, observation wards of L.C.C. general hospitals—	
Sera	7,095
Cerebro-spinal fluid	1,096
Total	16,686

### *Educational.*

Three medical officers were seconded for 3 months from L.C.C. hospitals for nervous and mental disorders during the year ended December 31st, 1936, as under:—

Dr. Jones (Caterham hospital)  
 Dr. Dalzell (Friern hospital)  
 Dr. Galbraith (St. Ebba's hospital).

The training of laboratory assistants for the various hospitals is becoming a constantly increasing item in the activities of the central laboratory. In addition to the 3 months' training given to newly appointed first and second grade laboratory assistants much work has been done by the laboratory staff in advanced teaching to those assistants who are preparing for their certificate examination. There is also a tendency for laboratory assistants to come to the central laboratory for advice and aid on technical problems. The response of the laboratory assistants to the facilities offered has been very enthusiastic and the results achieved by them have been extremely encouraging.

Nine laboratory assistants or selected members of the nursing staff were seconded for general laboratory training for 3 months during the year ended December 31st, 1936.



Ten laboratory assistants attended a special fortnight's refresher course in biochemistry, given by Dr. Mann, in November, 1936.

One laboratory assistant from Exeter mental hospital received permission to attend for training for 1 month.

*Medical School.*—The course for the Diploma of Psychological Medicine was attended by 50 post-graduate students.

The appointment of Dr. Nevin to lecture in neurology in place of the late Dr. Kinnier Wilson has been made the occasion to reorganize the course in neurology. This now extends to 26 lecture-demonstrations held at the hospital for Nervous Diseases, Maida Vale, by Dr. Nevin. The benefit of the increased facilities for neurological study has been apparent in the results of the examination for the Diploma of Psychological Medicine.

Professor Golla was appointed an examiner for the Diploma of Psychological Medicine by the Examining Board in England of the Royal College of Physicians and Surgeons.

#### *Research Workers.*

The following scholars, supported by the Rockefeller Foundation, continued their work at the laboratory : Dr. Meyer, Dr. Beck, Mr. Grey Walter.

On his appointment to the post of histologist the research scholarship held by Professor Meyer is now vacant.

Dr. Brazier has received a special grant from the Rockefeller Foundation during the present year.

The Medical Research Council made grants to Dr. Meyer and Dr. F. M. Grant. Dr. Blackburn also receives a grant from the same source. Facilities have been placed at the disposal of Dr. Slater for his work on manic-depressive insanity under the auspices of the Medical Research Council.

Dr. H. Fleischhacker is in receipt of a grant from the Professional Committee, Woburn House.

Dr. E. D. Yates was appointed to the Maudsley Fellowship in April, 1936.

Dr. F. M. Grant and Professor W. Peters received grants-in-aid from the Maudsley Bequest.

#### *Central clinic for remitted cases of general paralysis.*

A report on the incidence of general paralysis and the results of therapy during the years 1930–35 was issued to the Mental Hospitals Committee, and the records have been maintained to date.

The discharged cases of general paralysis continue to report to the central clinic, held by Professor Golla at the laboratory, and during the past year the following attendances have been made :—

New cases examined : Male, 24; Female, 14. Total attendances, 582.

#### *Publications.*

Volume 12 of "The Archives of Neurology and Psychiatry" was issued from the Central Pathological Laboratory.

A second, revised edition of the "Memorandum on the Wassermann Reaction in Mental Hospital Practice," by S. A. MANN, D.Sc., F.I.C., and F. PARTNER (L.C.C. Publication No. 3239), was prepared.

"The Time Pattern of Voluntary Movements." By W. PETERS and A. A. WENBOURNE. (*The British Journal of Psychology*, 1936, Vols. 26 and 27.)

"The Location of Cerebral Tumours by Electro-Encephalography." By W. GREY WALTER, M.A. Camb. (*The Lancet*, 1936, I.)

"Investigations on the Problem of Immunity against *Spirochaeta Pallida* in General Paralytics treated with Malaria." By A. BECK, M.D. (*The Journal of Mental Science*, 1936, Vol. 82.)



"Etat Marbré." By A. MEYER, M.D. Bonn., and L. C. COOK, M.B., M.R.C.S., L.R.C.P., D.P.M. (*The Journal of Neurology and Psychopathology*, 1936, Vol. 16.)

"Respiration of Brain." By T. F. DIXON, Ph.D., and A. MEYER, M.D. Bonn. (*The Biochemical Journal*, 1936, Vol. 30.)

"Bromide Intoxication." By R. F. BARBOUR, M.B., M.R.C.P., D.P.M. (*The Proceedings of the Royal Society of Medicine*, 1936, Vol. 29.)

"Bromide Intoxication." By R. F. BARBOUR, M.B., M.R.C.P., D.P.M., F. PILKINGTON, M.B., M.R.C.P., D.P.M., and W. SARGANT, M.B., M.R.C.P. (*The British Medical Journal*, 1936, II.)

"The Effect of Benzedrine on Intelligence Scores." By W. SARGANT, M.B., M.R.C.P., and J.M. Blackburn, Ph.D., B.Sc. (*The Lancet*, 1936, II.)

"Some Problems of Pathogenesis in Schilder's Disease." By A. MEYER, M.D. Bonn., and F. PILKINGTON, M.B., M.R.C.P., D.P.M. (*The Journal of Mental Science*, 1936, Vol. 82.)

"Studies on Lesions of the Basal Ganglia in Defectives : (1) A Case of Etat Dymélinisé (Hallervorden-Spatz Disease)" By A. MEYER, M.D. Bonn., and C. J. C. EARL, F.R.C.P.I., D.P.M. (*The Journal of Mental Science*, 1936 Vol. 82.)

"The Occurrence of Protective Antibodies in Syphilis." By A. BECK, M.D. (*The Journal of Pathology and Bacteriology*, 1937, Vol. 44.)

"The Electro-Encephalogram in Cases of Cerebral Tumour." By W. GREY WALTER, M.A. Camb. (*The Proceedings of the Royal Society of Medicine*, 1937, Vol. 30.)

"The Electro-Encephalogram in Epilepsy." By F. GOLLA, F.R.C.P., S. GRAHAM, M.B., B.S., D.P.M., and W. GREY WALTER, M.A. Camb. (*The Journal of Mental Science*, 1937, Vol. 83.)

## XXI.—FROM THE THREE COUNTIES HOSPITAL, ARLESEY, BEDS.

*General Report.*—By Dr. N. McDIARMID, D.P.M., Medical Superintendent.

### *Laboratory Work.*

The following is a summary of the work carried out in this department during the year :—

Urine : general and chemical examinations, 1,921; bacteriology, 204. Blood : Wassermann reaction, 233; complement fixation test, 26; Widal reaction, 964; haemagglutination, 1; sedimentation rate, 71; bacteriology, 10; parasitology, 16; sugar estimation, 123; urea estimation 39; alkali reserve estimation, 14; enumeration of cells, 91; Kahn reaction, 225; Meinicke reaction, 224. C.S.F. : chemical examination, 48; cytological, 24; Kahn reaction, 19; Meinicke reaction, 20; Wassermann reaction, 19; bacteriology, 2. Faeces : bacteriology, 134; chemical, 8. Aural, nasal and throat swabs, 143. Hairs, scales, etc., for parasitology, 16. Pus, pleural fluids, etc., 61. Sputum : bacteriology, 88. Water : bacteriology, 28. Gastric contents, 140. Milk : bacteriology, 73. Histological sections, 24. Museum specimens, 8. Vaccines, 67. Experiments under licence, 23. Virulence tests, 5. Total number of examinations, 5,112, of which 220 were carried out on behalf of local hospitals and general medical practitioners.

### *Insulin Therapy of Schizophrenia.*

After experience at the Psychiatric Klinik of Vienna University and Munsingen, the insulin treatment of schizophrenia according to Sakels' technique was started in this hospital in March. A later visit to Vienna afforded the opportunity of seeing and discussing modifications and improvements in the technique. We were also fortunate to have with us here for several weeks in the person of Dr. Forstmayer of the Psychiatric Klinik of the University, Vienna, one whose expert knowledge of the treatment was placed at our disposal when she visited this hospital to study our methods.



- For the first eight months of the 10 months' experience dealt with in this report, only six male patients could be treated at a time, owing to the lack of suitable accommodation. Recently, a villa has been specially adapted as a centre for the treatment where it is possible to treat under close observation, 20 patients, 10 of each sex, with additional accommodation for 10 convalescent cases. As a preliminary, every patient undergoes a detailed physical and mental examination. Pulse and temperature are observed for a few days, the weight and blood pressure are recorded. The urine is examined especially for albumen and casts; blood-sugar, blood-urea and sedimentation rate are also estimated. The previous history is ascertained by sending out exhaustive enquiry forms to the relations supplemented by interviews with them. A written consent for the application of the treatment is obtained in every case from the responsible relative to whom its risks are pointed out. Absolute contra-indications are cardiovascular, pulmonary, hepatic, pancreatic and renal diseases. It is postponed until recovery in general debility, all febrile conditions including coryza, diarrhoea of any origin and menstruation (for three to four days). It has been observed that in cases of debility due to mental cause, small daily doses of insulin followed within one or two hours by glucose orally or intravenously, rapidly improve the general bodily condition preparatory to commencing the treatment. Each patient has a card or sheet shown in table form :—

[illegible]



on which everything is noted daily as soon as it is observed by the nurse in charge. It has been noticed that many factors contribute towards success in treating a number of patients simultaneously, amongst these are comfortable peaceful and confidence-inspiring atmosphere in the ward, efficient nursing, examinations without undue interference during the treatment, and the gradual combination with other means of psychotherapy. The dose has been carefully increased so that coma does not set in before three hours after the injection. When the coma-dose is reached, it is repeated for the two or three following days and gradually somewhat reduced as most patients become sensitive to insulin. A female patient had a premature incidence of coma an hour after the second injection of her coma dose of 40 units. The coma was deepening with alarming rapidity and had to be interrupted with intravenous glucose. Later on she had comas with as little as 10 units and her resistance to insulin had to be raised with a few injections of Vitamin B<sub>1</sub>. Similarly three other patients under treatment who show special sensitivity to insulin are given wheat germ which is rich in Vitamin B<sub>1</sub>. It is hoped that this will not interfere with the degree of hypoglycaemia, the depth of coma and the incidence of fits.

In five patients very resistant to insulin premedication with sod. bi-carbonate orally was found to increase their sensitivity.

Toxic hypoglycaemic reactions such as vomiting, tachycardia and pyrexia occurred in several patients. These subsided after a short rest and the treatment was resumed with somewhat reduced doses.

The daily duration of coma extended gradually to suit each patient individually so that he could awake easily and without late effects, was found to vary from one-and-a-quarter to two hours. No fatality occurred. Three patients had protracted comas of 16, 10 and 8 hours respectively and one developed pulmonary oedema of sudden and alarming onset, from which he fortunately recovered.

No severe signs of hypoglycaemia were observed in the afternoon when all the patients, who have not had any complications in the morning, are up and occupied. Occasionally one or two were noticed to be somewhat somnolent but they soon recovered with the administration of some glucose tea or chocolate. No hypoglycaemic signs were noticed at night in any patient.

Sakel's recommendations were adhered to. Paranoid cases have been treated with deep comas, excited katatonics were interrupted in quiet somnolence at first, later on proceeding with deep comas. Stuporose cases were interrupted at first in euphoric or excited state following later by deep comas. These ways of applying the treatment have been found successful only in recent cases.

There has been a general and marked improvement in the bodily health of all the patients treated. The increase in their weight varied from 12 to 27 lbs.

Twenty-two patients have been treated with comas varying from 20 to 79 in number in two to four months' treatment. Fits occurred in six cases. One case had 11 fits, approximately two hours before the coma was expected. On the days luminal gr. one was given he had no fit and coma proceeded quietly. There was no previous history of any fits and he has had none during the seven months following the completion of the treatment. He remains unimproved. Five cases had from one to four fits in coma, a few minutes to an hour-and-a-half after its onset. Their occurrence appeared to be entirely accidental and unrelated to any variations in the coma dose attempted with safety. All have shown improvement after each fit. They were all comparatively recent cases, their symptoms (especially hallucinations) disappeared easily and eventually they acquired full insight into their condition and had a complete remission.

No fits occurred after coma in any of the 22 patients. Three of the remaining 16 patients who had no fits recovered but the rest showed no appreciable improvement even with an extended course of considerably over 50 comas, as shown in Table A.



TABLE A.

*Insulin.*

Case	Age	Diagnosis	Duration of Psychosis	No. of Comas	No. of fits due to Hypoglycaemia	Results
1	26	Katatonica	$\frac{1}{2}$ year.	22	—	Complete remission.
2	22	"	" "	20	—	"
3	23	"	" "	34	1	"
4	21	Paranoid	" "	26	2	"
5	30	Katatonica	1 "	36	3	"
6	28	"	" "	21	3	"
7	34	"	" "	16	4	"
8	36	"	$1\frac{1}{2}$ "	38	—	"
9	22	Paranoid	3 "	79	—	Unimproved.
10	24	"	4 "	68	11	"
11	23	Hebephrenia	4 "	75	—	"
12	36	Paranoid	Over 5 years	74	—	"

*Insulin and Cardiazol Combined Therapy.*

Ten of the 13 patients who have shown no appreciable improvement with a course of insulin therapy alone and whose bodily condition was found to be very good, were submitted to a combined treatment.

Insulin comas were continued and cardiazol fits were induced twice a week in the third hour following the injection of Insulin, approximately 15 to 30 minutes after the onset of the coma, when pulse and respiration were satisfactory. The dose of cardiazol required to produce a fit was found to be slightly smaller than in conscious state; 0.4 to 0.5 gramme in a 10 per cent. sol., was invariably followed by a fit. Cardiazol fits were omitted on days when premature incidence of coma was observed, which tended to deepen rapidly or respiration was distressed and pulse weak and rapid. Hypoglycaemia was interrupted immediately after the fit. No accidents occurred and the return to consciousness proceeded as usual. Four of the 10 patients so treated have up to the present satisfactory remissions as shown in Table B.

TABLE B.

*Insulin and Cardiazol.*

Case	Age	Diagnosis	Duration of Psychosis	No. of Cardiazol fits induced in Hypoglycaemia	Results
13	26	Katatonica	$\frac{1}{2}$ year	6—dose 0.4 g.	Complete remission.
14	25	Paranoid	$1\frac{1}{2}$ years	4— " 0.4 g.	" "
15	23	Katatonica	$1\frac{1}{2}$ "	8— " 0.5 g.	Unimproved.
16	21	"	2 "	4— " 0.4 g.	Complete remission.
17	19	Hebephrenia	2 "	6— " 0.4 g.	Partial "
18	27	Katatonica	$2\frac{1}{2}$ "	8— " 0.4 g.	Unimproved.
19	17	Stupor	3 "	8— " 0.4 g.	"
20	38	Paraphrenia	Over 5 years	6— " 0.5 g.	"
21	28	Stupor	" "	8— " 0.5 g.	"
22	29	"	" "	8— " 0.5 g.	"



*Conclusions.*

Twenty-two cases of schizophrenia have been treated, of whom 8 were discharged following Insulin therapy alone and another 4 following insulin and cardiazol combined. The duration of psychosis in the recovered patients ranged from 6 months to 2 years.

Prior to treatment all cases showed symptoms indicating that the psychosis was well established and were not amenable to ordinary psychotherapeutic measures. On recovery after completion of the treatment the disappearance of psychotic signs and return of insight was more complete than one finds in the "spontaneously" recovered. Bodily health has also improved considerably and they remain well adjusted to external conditions following their discharge from hospital.

The constant attendance of a medical officer during all the phases of the treatment is essential, and, owing to its dangerous nature preliminary training in a centre where it is extensively applied is absolutely necessary not only to acquire the experience to deal with emergencies, but also to ensure that a satisfactory technique is adopted. Faulty technique giving poor result may lead to the treatment being unjustly condemned.

In addition to the medical officer carrying out and directing the treatment, if more than 6 cases are being simultaneously treated it is most desirable that at least 1 other member of the medical staff should have expert knowledge of the treatment in order to be available in case of emergency.

*Cardiazol Treatment.*

Induced epileptiform attacks, according to Meduna's technique and recommendations have been applied as a treatment on 9 katatonic schizophrenics whose duration of psychosis ranged from 1 to 10 years. As a preliminary they were submitted to a careful physical examination and laboratory investigation of the urine and blood. An initial dose of 0.5 gramme in a 10 per cent. solution was used, increasing by 0.1 gramme until the fit producing dose was reached. Fits were induced twice a week.

One patient whose duration of psychosis was approximately 12 months had a complete remission after 14 fits. Two others with nearly 2 years' duration of illness have shown improvement. The rest remained unimproved largely owing to their lengthy period of illness.

*Malarial Treatment of General Paresis.*

All cases admitted suffering from this disease have had a course of malarial therapy and this has either been preceded (where the general health has been poor) or followed by a course of tryparsamide.

*Treatment of Post Encephalitic Parkinsonism.*

The treatment of this disease by "Bulgarian" Belladonna root as described by Neuwahl and Fenwick (*Lancet* 1937, ii, 619) is giving encouraging results, but the number of cases treated is too small to arrive at any definite conclusions.

*Prontosil in Haemolytic Streptococcal Conditions.*

Among the new therapeutic agents used here during the past year prontosil (p. aminobenzene sulphonamide) has proved its worth in the treatment of haemolytic streptococcal infections. This has been most evident in the treatment of erysipelas, this chemotherapeutic agent having completely superseded the use of antistreptococcal serum in this disease. Its action is swift and in many cases dramatic, there being a rapid improvement in the local and general condition of the patient. Our experience is, at least as far as erysipelas is concerned, that one can now approach a case of this disease with a feeling of confidence and the knowledge that there is less likelihood of a protracted illness with serious toxic symptoms.



Prontosil has also been used in the treatment of haemolytic streptococcal tonsillitis with excellent results, the condition of the tonsils improving rapidly with disappearance of the exudate, while the general condition of the patient showed rapid improvement. In these cases there were none of the not uncommon sequelae of heart involvement, joint affections or kidney trouble.

In several cases of cellulitis due to septic wounds prontosil has given good results, the inflammation subsiding without resort to surgical methods. In only one of those cases, however, could it be said that the condition was a true haemolytic streptococcal infection.

In two cases of urinary infection there was no apparent improvement from the use of prontosil.

In one case of lobar pneumonia in which prontosil was used a definite crisis took place on the fourth day but the patient died on the tenth day from dilated heart.

Routine treatment with prontosil has consisted of the administration of tabs. prontosil album 0.5 g. t.i.d. and in more severe cases this has been augmented by infection of prontosil soluble. We have had no cases showing any of the toxic effects of the drug, but each case is carefully watched for symptoms of sulphaemoglobinaemia.

Our limited experience supports the view of a prominent American medical authority that "the new chemical is one of the truly important discoveries of the century," and it is our intention to continue its use in every possible field.

#### *X-ray Department.*

During the year the following examinations have been made (exclusive of patients examined for private practitioners):—

Thorax, heart, etc., 57; limbs, spine, etc., 66; skull, 28; abdomen, 9; genito-urinary system, 8; barium meals, 6; barium enemata, 6; a total of 180 examinations involving the taking of 252 skiagrams. For private medical practitioners, 19 examinations were made involving the taking of 29 skiagrams.

#### *Dental Department.*

During the year there were 720 attendances. Of the new patients, 22 per cent. had already had conservation treatment and 28 per cent. were suffering from pyorrhoea or gums in a poor condition. The proportion of extractions to fillings was about 5 to 1.

#### *Dysentery and Colitis.*

There have been no cases of dysentery or colitis during the year.

#### *Publications.*

"Induced Epileptiform attacks as a treatment of Schizophrenia." By Dr. L. A. FINIEFS (*Lancet*, vol. 2, p. 131, 1937). The early observations of mental improvement following seizures are noted. Meduna's theory and early investigations with camphor in oil and later with cardiazol are discussed. The preparation of the patients, the contra-indications and technique are described. Results were most satisfactory in catatonic stupor and in recent cases of other forms of schizophrenia. A combination of insulin therapy and induced fits is reported as giving satisfactory results in cases not responding to insulin or cardiazol used separately.

"The Pharmacognosy of 'Bulgarian' Belladonna Root—A Preliminary Note." By Arthur E. Bailey, A.I.C., M.P.S. (*Pharmaceutical Journal*, January 22nd, 1938, p. 77). The initial results of some work now in progress on the pharmacognosy of "Bulgarian" belladonna root, consequent upon a decision to try out the "Bulgarian" treatment of post-encephalitic parkinsonism as described by Neuwhal and Fenwick (*Lancet*, 1937, ii, 619).



The paper describes the results obtained on the examination of some of the root obtained with a view to treatment.

Its morphological and histological characters were found to differ only slightly—if at all—from those of the ordinary belladonna root of commerce. The alkaloid content was determined, and found to be 0·24 per cent. (calculated as hyoscyamine)—B.P. standard is 0·4 per cent.

Qualitative chemical tests, and physiological tests on rabbits, indicated that the chemical constituents are similar to those of the ordinary belladonna root of commerce.

It is suggested that any pharmacological properties peculiar to the Bulgarian root are due, either to some degradation product formed by hydrolysis during the preparation of the decoction, or by enzyme action, or alternatively to some non-alkaloidal constituent not yet determined or to some difference in the relative apportionment of the alkaloidal constituents.

Further investigation is to be made.

The results obtained were compared with those obtained by Kuiper and Van der Wielen (*Pharmaceutische Weekblad* 49, 1546).

“The Pharmacist to a Mental Hospital.” By Arthur E. Bailey, A.I.C., M.P.S. Published in the *Pharmaceutical Journal* in 2 parts, pp. 313–4, September 18th, 1937, and pp. 337–8, September 25th, 1937.

The papers constituted a review of pharmaceutical and chemical work done in this hospital in the last eight years.

In particular, emphasis is laid on the analytical side of the work, and on the value of chemistry as applied to the control of many processes essential to the working of a modern mental hospital, such as water-softening, laundering, disinfecting, etc.

The work is treated in sections, each section summarising the chemical tests required, the value of the results, and their interpretation. The main sections discussed are (i) Water-softening; (ii) Water supply and control; (iii) Laundering and evaluation of laundry materials; (iv) Treatment of foul linen and clothing; (v) Analysis of dairy products and bought foodstuffs.

## XXII.—FROM THE JOINT COUNTIES MENTAL HOSPITAL, CARMARTHEN.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following is a summary of pathological work carried out during the year :—

Urine : routine and special tests, 419. Blood : total counts, 367; haemoglobin estimations, 181; malarial parasites, 121; sugar estimations, 13; urea estimations, 6; Van Slyke urea clearance tests, 6; blood grouping, 11; Kahn precipitation tests, 195; Widal reactions, 994. C.S.F. : globulin and protein reactions, 25; cell counts, 13; sugar estimations, 13; Langes colloidal gold test, 12; other tests, 12. Bacteriological : sputum, 63; faeces, 2,242; urine, 23; pus, 16; throat swabs, 20. Water analysis : total tests, 106. Milk analysis : total tests, 56. Gastric analyses, 74. Preparation of autogenous vaccine, 4. Miscellaneous tests, 373. Post-mortems, 39 (65 per cent. of deaths).

*Laboratory Assistant.*—Mr. E. LONG.

## XXIII.—FROM THE CHESHIRE COUNTY MENTAL HOSPITAL, CHESTER.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following is a summary of the routine laboratory work carried out during the year :—

Urine examinations, 1,158; Wassermann tests, 337; examinations of swabs, 198; faeces, 122; sputum, 25; blood counts, 130; blood sugar estimations, 56; examinations of pus, 10; reticular cell counts, 35; Widal tests, 132; examinations of blood for malarial parasites, 398; samples of milk analysed, 70; stomach contents analysed, 13; miscellaneous (blood-urea, blood-calcium, etc.), 19.

In three cases autogenous vaccines have been prepared.



## XXIV.—FROM THE CHESHIRE COUNTY MENTAL HOSPITAL, MACCLESFIELD.

*Report on Laboratory Investigations.*—By Dr. H. STAFFORD, D.P.M.

The total number of investigations carried out in the Pathological laboratory during the year 1937 was 3,968; these are summarized below:—

Routine urine examinations, 2,297; bacteriological examinations: urine, 26; faeces, 566; sputum, 49; pus, exudates, etc., 33; preparation of autogenous vaccines, 3; full blood counts, 15; examinations of blood films, 23; chemical examinations of blood, 98; examinations of c.s.f., 13; agglutination reactions of blood serum, 388; tissue sections for microscopical examination, 121; Wassermann reactions of blood and c.s.f., 187; Kahn reactions of blood and c.s.f., 149.

The search for carriers of enteric or dysentery bacilli was continued from the preceding year, the stools of all patients in wards where cases of infection by these organisms had arisen during recent months being repeatedly examined. The investigation has not led to the discovery of any carriers. Non-lactose-fermenting colonies have frequently developed, often in large numbers in proportion to the coliform colonies, in the cultures; from the 400 stools examined for this purpose *B. Morgani* was isolated 12 times, *B. faecalis alkaligenes* 3 times, late lactose fermenters 3 times, and unclassified bacteria twice.

During the year 4 cases of dysentery occurred. In March 3 patients in one of the male wards developed infections which were clinically typical of dysentery, with a sudden onset, the passage of frequent stools containing obvious blood and mucus, and slight initial pyrexia. Repeated bacteriological examinations of stools and rectal swabs during the first few days from each of these 3 cases invariably produced a large number of colonies of *B. Morgani* in cultures, and no dysentery bacilli were isolated. All the cases recovered, and at a later date the blood serum of each was found to agglutinate *B. dysenteriae* Flexner X in significant titre. The fourth case is of interest as being the only case of infection by the Sonne dysentery bacillus known to have occurred in the hospital; the patient was a male employed as a cleaner in the laboratory whose illness commenced shortly after *B. Sonne* had been isolated from a specimen of faeces sent for examination from a source outside the hospital. Other cases of diarrhoea were infrequent and mild, and no pathogenic bacteria were isolated from the stools of these, though late lactose fermenters, *B. Morgani* and atypical coliform organisms appeared on the plates occasionally. Apart from the above cases of dysentery no specimen of faeces received in the laboratory for bacteriological examination contained gross naked-eye evidence of the presence of blood and mucus. There were no cases of enteric fever during the year.

Six cases of infection by the tubercle bacillus were diagnosed bacteriologically and notified during the year; 4 of these were new patients found to be suffering from phthisis on admission, 1 nurse developed pulmonary tuberculosis, and the sixth was a recrudescence of an old tuberculous arthritis in a senile patient.

Acute pyogenic infections of the urinary tract occurred in small numbers during the year, all the patients being females; the organism incriminated was always some variety of *B. coli*; in 1 case, which eventually recovered, this organism was isolated on blood culture on 2 occasions during the severe onset accompanied with rigors. Glycosuria has been found rather more frequently during the past year on routine examination of urines. All cases in which the presence of sugar in the urine was persistent have been submitted to a glucose tolerance test; in the majority of these the curve obtained has been of the lowered glucose tolerance type associated with thyrotoxicosis, others have given a "lag" curve probably due to rapid carbo-hydrate absorption, and in a few cases the glycosuria has proved to be of "renal" type; 4 patients have true diabetes mellitus.

The sera of 117 new admissions were examined for agglutination of *Bac. typhosus*, *Bac. paratyphosus* B and *Bac. dysenteriae* Flexner Y. The dysentery bacillus was agglutinated in dilutions of 1 in 50 or higher in 6 hours at 55° C. by 32.5 per cent.; *Bac. typhosus* and *Bac. paratyphosus* B were



both agglutinated in dilutions or 1 in 25 or higher in 2 hours at 55° C. by 2·6 per cent.; *Bac. typhosus* only by 1·7 per cent.; no serum agglutinated *Bac. paratyphosus B* only of the enteric organisms in these dilutions.

During 1937 the Kahn test in addition to the Wassermann reaction has been applied to the sera of all new admissions with the exception of a few senile cases. The Kahn reaction is proving more sensitive than the Wassermann, especially in cases which have received antisyphilitic treatment at some time in their history; 3 cases of G.P.I. admitted during the year had negative Wassermann but positive Kahn reactions in the blood serum. Of the new admissions during the year 7 male and 5 female patients were found to have positive Wassermann and/or Kahn reactions in the serum—9·86 per cent. of the total male, and 3·58 per cent. of the total female admissions. The corresponding figures for 1936 were 10·67 and 4·76 respectively.

In addition to the above investigations the laboratory furnished reports on 218 specimens submitted by or collected from various sources outside the hospital.

#### XXV.—FROM THE DEVON COUNTY MENTAL HOSPITAL, EXMINSTER.

*Report on Clinical and Pathological Investigations.*—Communicated by Dr. C. F. BAINBRIDGE, Medical Superintendent.

*Laboratory Report.*—By. Dr. V. F. FORBES-WINSLOW.

The alterations and additions to the laboratory, which were in process throughout the greater part of 1936, and which unavoidably interfered with the laboratory routine, were completed towards the close of that year so that work was commenced in 1937 under considerably improved conditions, resulting in a general increase in the number of examinations carried out. The appointment of a further assistant to the laboratory has simplified the running of the department, and thereby appreciably increased its efficiency.

*Typhoid Fever.*—Early in the year (March) the occurrence of a single case of typhoid fever in a female patient from block 1 necessitated a wide search for a carrier of that disease to be made; this, however, was fruitless, although every patient from female block 1 was subjected to a faeces examination and a blood agglutination test. A second case of typhoid occurred in August in a patient from the aforementioned ward. Both these cases ran a modified and somewhat atypical course, due no doubt to the fact that they were innoculated with t.a.b. vaccine in 1935; fortunately they both terminated favourably. As a precautionary measure it is proposed to initiate a routine faeces examination on all new admissions in the new year.

*Dysentery.*—During the year 9 cases of dysentery (5 females and 4 males) were notified, and also 6 cases (all females) of severe diarrhoea. As regards the dysentery cases, the Sonne bacillus was isolated from 4 (2 males and 2 females), 1 female yielded a Newcastle strain, and the other 2 males a Flexner Y; the remaining 2 females, who died soon after the onset of the diarrhoea, presented a dysenteric appearance of the large intestine at post-mortem examination, and this was considered in all probability to be due to a Shiga infection, but owing to the rapidity of the disease no organism was isolated prior to decease. An extensive search was instituted to discover the mode of infection, and 7 patients who showed dysenteric antibodies in their blood were isolated; however, bi-weekly examinations of the stools of these 7 patients over a period of six weeks revealed no pathogenic bacteria. In addition, complete chemical and bacteriological analyses of the main water supply and main storage cisterns were carried out, but the results of these showed that the water was not contaminated, and was perfectly wholesome. As dysentery has been abnormally prevalent throughout the county of Devon this year, the return of cases from this institution cannot be regarded as excessively high.

Three cases of diphtheria occurred early in the year; these were of a mild type, and responded well to anti-toxin treatment. As a precaution the Sanatorium staff were Schick tested, but were all found to be negative reactors.

Confirmation of pulmonary tuberculosis was made in 12 cases (5 males and 7 females). This is an average annual return.



The recent innovation of subjecting all new admissions under the age of 60 to a Wassermann blood test was practised throughout 1937, and 20 patients gave a positive reaction, representing 7·3 per cent. of the cases thus examined; of these 13 were general paretics, and 1 was a case of cerebral syphilis. The Kahn flocculation test performed at the same time gave an identical number of positive results. The hospital is indebted to Dr. McEwan, the County Bacteriologist, for continuing to carry out the Wassermann tests.

Ninety-six post-mortem examinations were carried out during the year; this figure is 77·4 per cent. of the total deaths, and is a satisfactory percentage. Two of these autopsies showed cerebral tumours (1 tuberculoma, 1 astrocytoma), one revealed a rupture of the heart, due to extensive thrombosis of the left coronary artery. A rather unusual finding in another case was that of a perforated tuberculous ulcer of the small intestine, in a man who suffered from acute pulmonary tuberculosis. Lastly, there was an interesting case of retro-peritoneal sarcoma invading the lumbar region of the spinal cord, and with multiple secondary deposits in the skull. A large liver abscess found at exploratory laparotomy, tentatively diagnosed at time of operation as an infected hydatid cyst, owing to its apparent cystic appearance, and a history of residence in Australia, was subsequently diagnosed by our Hon. Con. Pathologist (Dr. Robb), on examination of post-mortem material as an hepatic melanoma.

McCartney's screw-capped bottle method of storing media, which was first tried last year, has now been permanently adopted as the routine method in this laboratory; as also has the use of Lowenstein-Jensen medium for the culture of the tubercle bacillus.

An investigation to find the percentage of patients with abortus antibodies is proceeding.

The following is a summary of the laboratory work for 1937 :—

*Bacteriological and Pathological* : sputum for T.B. and other organisms, 50; throat swabs, pus, etc., 86. Blood : counts (red and white cells), 194; differential counts, 93; sedimentation rate, 3; malarial parasites, 94. Agglutination tests : typhoid, dysentery, etc., 143; abortus, 39; culture, 7; haemoglobin, 141; Arneth index, 2. Urine : T.B., 3; culture, 11. Faeces : T.B., 11; cultures for typhoid, dysentery, etc., 193; ova, amoebae and cysts, 3. C.S.F. : cell counts, 64. Wassermann tests : blood, 278; C.S.F., 63. Kahn flocculation tests : blood, 232; C.S.F., 40. Histological sections, 96. Museum specimens, 38. Schick tests, 8. Water (bacteriological), 4. Laundry disinfectors, sterility test for, 2. Post-mortem examinations, 96 (77 per cent. of deaths). *Biochemical Investigations* : Blood : urea, 11; sugar, 25; sugar tolerance tests, 9; sugar tolerance tests for insulin therapy, 4; Van den Bergh, 5; bromide, 2. Urine : routine tests, 90; urea concentration tests, 1; melanogenurea, 5; ketonurea, 16; pH, 16. Faeces : occult blood, 7; fats, 3. Gastric analyses, 11. C.S.F. : Langes colloidal gold curve, 64; globulin estimations, etc., 64; Milk : fat estimations, etc., 4. Water : chemical examinations, 4.

*Malaria Therapy for G.P.I.*—By Dr. T. J. K. BROWNLEES.

During the year 1937, 13 male and 2 female patients suffering from general paralysis of the insane were treated with malaria. A point of interest was the high average age (52 years) of the male patients. Thirteen cases were infected with benign tertian, and 2 with quartan malaria; the latter were undergoing a second course of malaria.

Five patients were bitten by mosquitoes, and the remainder injected with blood containing parasites.

The average incubation periods were 11 days for blood inoculated patients, and 13 days for those bitten with mosquitoes. In the 2 patients infected with quartan malaria the incubation period averaged 19 days.

Many g.p.i.s are still admitted to hospital in an advanced stage of the disease, a number being bed-ridden and incontinent. The history dating back, in some cases, as long as 4 years. Nevertheless, favourable results were obtained in 7 cases. Three of these patients have returned home, and it is expected that 2 more will shortly be fit for discharge.



One hundred male patients were treated with malaria during the period 1925-1938. Thirty-seven of these patients were discharged from the hospital, 36 have died, and 27 remain in the institution. The annual questionnaire was sent to these g.p.i.s who have returned home. A majority of these former patients are keeping well and are actively employed. Of the 27 g.p.i.s still resident in the institution, 19 are usefully occupied, 7 in addition having the privilege of parole.

This year, as in previous years, we have continued to co-operate with the malaria department of the Ministry of Health. This co-operation is proving of great value both to the Ministry and to the institution. It has enabled us to study the effects of different types and durations of malarial infection. At the same time it has afforded very useful information for workers in the tropics. No new causal prophylactic studies have been undertaken, but the work done in previous years has now been summarized, and will shortly be published by the Malaria Commission of the League of Nations in a paper entitled "*The Therapeutics of Malaria*," No. 2.

The earlier published results of successful prophylaxis, particularly in *P.falciparum* have been justified, as none of the patients has relapsed. These results have again shown that in *P.falciparum* there appears to be no tendency for the primary infection to remain latent for long periods. It will be remembered that in many of our trials with *P.vivax*, both Plasmoquine and Atebrins prevented the onset of the attack within the usual incubation period of 10 to 14 days, but most of the cases developed the disease clinically and parasitologically between the sixth and tenth month from the time of infection. All these findings are dealt with fully in the forthcoming "*Therapeutics of Malaria*" already mentioned.

*Cross Immunity.*—A number of patients who had received malaria treatment with *P.vivax* some years previously were again infected with malaria to see whether any further improvement in their mental and physical condition could be obtained, the species of parasite used being *P.malariae*.

Although this form of treatment is now a part of the routine malaria therapy in this hospital it is of great interest to the malariologist because it shows quite clearly that there exists no cross immunity between various species of malaria parasites.

The problem of the spring rise of *P.vivax* in Europe has not yet been satisfactorily explained. It is a well known fact that throughout Europe there is an almost sudden increase in the number of malaria cases in April and May, at a time when the chief carrier *Anopheles maculipennis* is still hibernating. It is therefore quite certain that this rather sudden increase in indigenous malaria is not the result of the activity of newly infected mosquitoes.

Some malariologists are of the opinion that most of these cases were infected in the previous autumn, and that the parasite has lain dormant either as sporozoites or as asexual forms in small numbers in one or other of the internal organs or bone marrow. Others believe that mosquitoes which become infected in late summer are able to harbour living sporozoites in their salivary glands throughout the winter. Then, when they bite again in early spring, the sporozoites being still alive new infections occur.

The question of whether the sporozoites are able to remain alive in the insect host at low temperatures for several months is therefore of great importance to malariologists.

We have co-operated with the Ministry of Health on this question by inoculating patients in whom we consider it possible that a further course of malaria infection might be beneficial. At the present time we have some patients who have been inoculated with sporozoites which have been subjected to low temperatures for many weeks. It is too early to announce any results of these trials, but they will be published in our next annual report.



*Insulin Shock Treatment.* By Dr. W. J. F. DAVIES, Dr. J. W. FISHER, D.P.M., and Dr. T. J. K. BROWNLEES.

Our first step in insulin shock treatment was to instruct our nursing staff, and prepare for them a typewritten sheet containing all the essential points of the procedure.

Considering the number of alarming complications and the mortality in shock therapy we thought it advisable to treat a group of chronic patients of strong physique. During the past year we have treated 10 cases of dementia praecox by this method (6 females and 4 males) and we are quite satisfied with the results.

Three cases showed marked improvement, while 2 cases appear to have benefited. In view of the chronicity of our cases the partial recovery in a number of them must be regarded as distinctly promising.

The results, insubstantial as they are, go to support the common view held, "the more recent the case the better the prospects."

With more experience and a specially trained nursing staff we found that by careful observation emergencies were of insidious onset and not sudden, that contingencies could be expected and treated accordingly. We agree with certain authors that the nasal tube be placed in position at the time of interruption.

The administration of various types of Vitamin B. did not accelerate the absorption of glucose. One of the most important points for the avoidance of complications was the maintenance of an efficient airway.

Ninety-minute comas were found to be adequate. For those patients who were able to drink their glucose, lemon juice has superseded tea. Sometimes a patient would vomit the glucose. A stomach washout, leaving an ounce of glucose solution, would, in such cases, enable a patient to recover sufficiently to sip more glucose and return fully to consciousness.

On a few occasions (in our first week of comas) we resorted to emergency measures. Intravenous glucose was used twice but no serious mishap occurred.

*Sulphanilamide.*—By Dr. W. J. F. DAVIES.

Sulphanilamide (to give it its shortened name) is a new specific therapeutic agent used orally in the treatment of infections caused by the streptococcus haemolyticus. Since this organism has been proved to be the underlying cause of many serious conditions such as puerperal sepsis, tonsillitis, septicaemia, erysipelas, mastoiditis and otitis media, this new drug has been very valuable in our therapeutic armamentarium.

Recently the excellent results published by various authors have prompted us to use the compound in other physical diseases such as the common cold, influenza and broncho-pneumonia, which are common in both staff and patients of mental hospitals. Indeed, this drug has proved itself of sterling value in life saving. Although of foreign origin, the great demand has prompted British chemists to prepare the product, and I have found that the home preparation is equally efficacious and cheaper.

Toxic reactions are recorded in the medical literature but have not been observed in our patients.

The efficacy of this drug was manifested in a member of the nursing staff who developed Ludwig's Angina following teeth extractions, an operation being prevented; and we have good reason to believe that in another patient an attack of appendicitis was aborted.

*Somnifane Narcosis.*—By Dr. T. J. K. BROWNLEES.

Five male patients who were not responding to routine treatment received a course of somnifane narcosis. Four of these patients were cases of schizophrenia; the fifth was diagnosed as suffering from an anxiety state. One of the schizophrenics was of the simplex type, the others of the katatonic variety.



Three of these patients reacted favourably to the prolonged narcosis, and have subsequently been discharged from hospital. In the 2 remaining patients the course of the illness was not influenced by the treatment with somnifane.

*Prominal*.—By Dr. W. J. F. DAVIES.

A group of 27 chronic adult epileptic patients of both sexes were selected. Most of them were stabilized on phenobarbitone. The results are considered individually in a chart, and also collectively with relation to behaviour.

In the comparison each period observed occurred at the same time of year. The dosage of prominal was twice the stabilized phenobarbitone dose, i.e. if on gr. iii, phenobarbitone daily, prominal gr. vi. was prescribed.

We have not obtained the encouraging results that other observers have had.

In 61.5 per cent. there was a marked decrease in fits, 2 patients were rendered fit free. There was no numerical change in the fits of 19.2 per cent., whilst in 19.3 per cent. there was an increase in fits, not only in numbers, but severity.

No gross changes in mood or behaviour were noticed except a persistent exaggeration in the cases of petit mal (25.9 per cent.). Also prolonged confusion replaced the post-epileptic automatism. One patient became more violent, and in another the drug had to be discontinued owing to increasing excitement.

A table is appended showing the number of average monthly fits on phenobarbitone and prominal with average increase or decrease of fits and remarks.

Our conclusion is that prominal has by no means ousted bromides or phenobarbitone from the treatment of epilepsy.

Patient	Average monthly fits on phenobarbitone	Average monthly fits on prominal.	Average increase or decrease.	Remarks.
1	10	12.8	+ 2.8	Periods of excitement followed by confusion
2	23.4	27.8	+ 4.4	Petit mal increased.
3	4	4	0	No change.
4	9	6.7	— 2.3	No change.
5	4	4	0	No change.
6	18	17.8	— .2	Petit mal increased.
7	13.2	4	— 9.2	Increasing petit mal.
8	5.6	4.4	— 1.2	No change.
9	14.2	9.6	— 4.6	No change.
10	25.2	8.4	— 16.8	Petit mal increased.
11				Had to be discontinued through excitement.
12	9.6	1.6	— 8	No change.
13	1	1+	+ 1	Fits increasing by one a month.
14	15	4	— 9	No improvement.
15	3	3	0	No improvement.
16	7	7	0	More violent.
17	16.8	11.5	— 5.3	No change.
18	1	.25	— .75	No change.
19	4.5	0	— 4.5	No change.
20	17	18.3	+ 1.3	No change.
21	1	1	0	No change.
22	.5	0	— .5	No change.
23	5	3.6	— 1.4	No change.
24	5.6	3.2	— 2.4	Slight improvement.
25	1.8	1.4	— .4	No change.
26	5.7	0	— 5.7	No change.

+ denotes increase in number of fits.

— denotes decrease in number of fits.

0 denotes no change in number of fits.



*Dental Report.*—By Dr. L. E. CLAREMONT, M.D.S., L.D.S., L.R.C.P.

The following is a survey of the dental work for the year 1937, compared with the work carried out in 1933, when the present arrangements came into force. The figures show a striking improvement in the dental condition of the patients. This has been steady, and has now reached a level which will not be easy to raise further.

	1933	1937
Number of patients examined ... ..	1,023	1,344
Number of patients treated ... ..	925	708
Number of patients with no treatment necessary	98	377
Extractions with general anaesthetic ... ..	1,782	847
Extractions without a general anaesthetic ...	853	94
Total extractions ... ..	2,635	941
Scaling ... ..	232	219
Special gum treatment ... ..	30	6
Fillings ... ..	29	10
Dressings ... ..	12	1
Dentures repaired ... ..	5	18
Dentures re-made ... ..	11	18
Dentures new ... ..	38	9
X-rays ... ..	6	—
Other operations ... ..	29	193

Among the regular inmates of the hospital, gross oral sepsis has been eliminated, and the contrast between this large group and the new arrivals during the last year is very marked.

The Medical Superintendents and their medical and nursing staffs have always taken a keen interest in, and rendered the utmost help to the dental work.

The equipment and lighting of the department has greatly improved, and the whole routine organized to give the maximum of efficiency. The hospital is now in a position to render the new arrivals dentally fit as soon as they are detailed for inspection and treatment.

General anaesthetics such as nitrous oxide, ethyl chloride, and intravenous Evipan sodium, the latter for difficult resistive cases, are administered for most of the extractions. Premedication is frequently helpful. Artificial dentures are only supplied to cases specially approved and recommended by the medical officers, and more especially those already wearing dentures that are loose or broken, and where the removal of septic human teeth renders them unserviceable.

Where patients are insured in an approved society, and dental benefit is allowed, the dental forms are filled up at the completion of treatment, and the society's contribution paid to the hospital.

I am of the opinion that the dental health of our patients stands high, and oral sepsis as a contributory factor to mental instability has been practically eliminated.

#### XXVI.—FROM THE DORSET COUNTY MENTAL HOSPITAL.

*Pathological Report.*—By Dr. P. W. BEDFORD, D.P.M., Medical Superintendent.

*Laboratory work.*—During the year 3,442 investigations were carried out in the laboratory, this being an increase of 246 on the previous year. Subjoined is a summary :—

Urine : albumen, sugar, deposit, etc., 1,412; sugar estimations, 27; albumen estimations, 5; urea estimations, 3; spectroscopic examinations, 33; bacteriological examinations, 17. Faeces : bacteriological examinations, 399; rectal swabs, 498. Blood : Widal's reaction, 231; Meinicke's, 275; Wassermann, 14; urea estimation, 4; sugar estimation, 3; R.B.C. and W.B.C. count, 19; differential count, 9; polynuclear count, 4; culture, 1; for malaria parasites, 36. C.S.F. :



chemical and cell count, 33; colloidal gold curve, 40; colloidal mastic curve, 31; Meinicke's reaction, 31; Wassermann, 19; bacteriological examination, 1. Bacteriological examinations: sputum, 30; throat swabs, 22; pleural fluid, 1; water, 96; milk, 10. Vaccines, stock—bottles of 25 c.c., 119. Gastric juice, chemical, 3. Pathological sections. 16.

*Extracts from two Papers by Dr. J. Stephen Horsley.*

1. *Convulsion Therapy with N-Butyl-Ethyl Barbituric Acid.*

Numerous writers have described isolated cases of schizophrenia which have improved dramatically immediately after a convulsion accidentally induced by abruptly withholding medication after narcosis with one or other of the barbituric acid derivatives. These convulsions are reported in about 1 per cent. of treatments by prolonged narcosis with somnifaine. In 1936 the writer described 40 treatments with soneryl and 4 of these patients on discontinuing narcosis had convulsions. Since then Broder using sodium amytal has shown that the tendency to convulsions can be increased by rapid withdrawal of the drug, and 6 of his patients so treated showed definite signs of improvement following the convulsion. The writer has continued to use n-butyl-ethyl barbituric acid, known in this country as "soneryl" and in America as "neonal," and has found that by deliberately inducing a high degree of tolerance for the drug, by steadily increasing the dose, and then by abruptly stopping medication it is possible to produce convulsions in most cases of schizophrenia.

Much interest has been aroused in convulsions therapy by the reports of Meduna's achievements with camphor and cardiazol. Moreover, cardiazol convulsion therapy has been used successfully in a number of cases in this hospital. Certain early cases of schizophrenia who were expected to respond well to this treatment found it unpleasant and, being voluntary patients, departed before they had recovered and before the treatment was completed. The post-narcotic convulsions therapy is more applicable to these cases in that it avoids the subjective discomfort, the patient is at rest the whole time, and in many cases one convulsion has been followed immediately by a full remission. Ten cases of schizophrenia treated by this method were able to resume their usual occupations.

A case of anxiety hysteria with a history of 4 years incapacity with palpitations, persistent fears and hypochondriasis, was also treated by this method. She was given neonal sodium gr. 6 six-hourly, increased to gr. 6 four-hourly for 10 days. When this was stopped she had two epileptic convulsions and 1 week later she was discharged recovered.

2. *Pentothal Acid—A New Basal Anaesthetic.*

The introduction of pentothal acid as a basal anaesthetic is the outcome of 3 years' research with the corresponding salt, pentothal sodium, which was administered on more than 2,000 occasions. It was observed that pentothal sodium was always effective and satisfactory as an intravenous anaesthetic, but that when administered orally its action was less reliable.

*Conclusions.*

(1) Pentothal acid is a satisfactory basal hypnotic remarkable for its rapid elimination and calm post-anaesthetic awakening.

(2) Pentothal acid possesses marked anti-convulsant and anti-epileptic properties.

(3) The action by the mouth is enhanced by administering the drug in a gelatine capsule and following it by an alkaline mixture.

(4) The dose may be calculated by body-weight, 1 grain per stone is mildly hypnotic whilst twice this dose is required to produce basal anaesthesia.



(5) The action is equally rapid and rather more profound if pentothal acid is given rectally dissolved in 1 ounce of ether oil emulsion.

(6) Pentothal acid is not regarded as a complete anaesthetic. It is used as a basal narcotic to be supplemented as required by intravenous anaesthesia with pentothal sodium or evipan, or by inhalation anaesthesia with gas and oxygen or with vinyl-ether.

(7) Pentothal acid is also of some value in calming excitable and agitated patients of the manic-depressive type, and for this purpose the best effect is obtained by giving frequent small doses, e.g. 4 grains four-hourly. This technique is comparable with somnifaine narcosis but it has the advantage of being less toxic, although it is still necessary to take the special precautions advised for any treatment by prolonged narcosis.

#### XXVII.—FROM THE DURHAM COUNTY MENTAL HOSPITAL.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following is a summary of the examinations made during the year :—

Urine : general and chemical, 705; bacteriology, 74. Blood : Wassermann reactions, 83 ; Widal reactions, 960; counts, haemaglobin per cent. Arneeth colour index, 210; parasitology, 4; sugar tolerance, 1. Throat swabs : bacteriology, 139. Faeces : bacteriology, direct smears, cysts, ova, 1,522; chemical, 1. Pus, fluids, etc., 6. Sputum : bacteriology, 69. C.S.F. : Cytology, 38; chemical examinations, 266. Water—bacteriology, 5. Cabbage—bacteriology, 3. Tissue : histology, 3. Wassermann reactions, 38.

#### XXVIII.—FROM THE GLAMORGAN COUNTY MENTAL HOSPITAL.

*General Report.*—By Dr. D. RHYD OWEN, Medical Superintendent.

##### A.—Laboratory.

The following is a summary of the investigations undertaken during the year :—

Urine : routine and special, 3,063 ; bacteriological, 16 ; urea, 3 ; bile, 23 ; blood, 16. Blood : red cell counts, 63 ; white cell counts, 63 ; percentage haemoglobin, 63 ; blood films (including malarial parasites), 96 ; Wassermann reactions, 403 ; Kahn reactions, 436 ; sugar tolerance tests, 6. C.S.F. : Wassermann reactions, 3 ; Kahn reactions, 3 ; gold chloride (Lange), 1. Faeces : bacteriological, 352. Miscellaneous : sputa for T.B., 26 ; diphtheria, 2 ; pus, 2.

##### B.—Clinical.

(a) *Weight and Mental Disorder.*—The researches into the significance of body weight in mental disorder, concerning which a preliminary account appeared in last year's report, have been continued.

From the results obtained a number of interesting points have emerged. The variations in body weight found amongst mentally ill people are much more frequent, much greater in extent and very much more rapid than those found amongst physically and mentally healthy people, and furthermore appear to be quite independent of diet. The changes vary *pari passu* with the mental condition and it is highly probable that the results already obtained can be utilized as an aid to prognosis.

A more detailed investigation into the weights of patients on discharge suggests that, in general, cases discharged as recovered invariably show a definite gain in weight whilst those discharged as relieved or not improved show little gain or a loss in weight.

The weights on admission also varied considerably from the normal and an analysis of the weights of 8,000 patients on admission to this hospital showed



that over 70 per cent. were markedly subnormal in weight. Although this phenomenon varied in extent from year to year, it was essentially true in fact during the whole period studied, namely 1900 to 1936. The extent of the "underweight" was appreciable and in general existed equally amongst males and females. The older a patient the more underweight he was on an average. No correlation with any mental disease group was obvious and physical illness did not account for the changes observed.

The results of this work indicate a definite connection between body weight and mental disorder.

More detailed reports of this work have been incorporated in the following papers :—

*Body weight in Mental Disorder.*

Part 1. The significance of body weight in Clinical Psychiatry. D. R. Davies, T. P. E. Hughes and J. Kelnar.

Part 2. An analysis of body weights in 8,000 admissions to the Glamorgan County Mental Hospital. D. R. Davies.

Part 3. Changes in body weight in relation to Prognosis and Discharge—an analysis of 1,000 cases. D. R. Davies and T. P. E. Hughes.

(b) *Psychotherapy*.—During 1937 psychotherapy on analytical lines was begun by Dr. Kelnar with 3 patients. Later in the year 2 external patients were added. External patients visit the hospital only periodically to receive the treatment, which thus has the merit of not interfering with the patient's domestic life or with his work, an advantage which needs no emphasis.

Each patient is seen for at least an hour at a time 3 times a week, and although to hold more frequent sessions would undoubtedly accelerate results, at present it has not been found possible to do so.

The provisional diagnosis in the cases under treatment is as follows: Manic-depressive psychosis, 1; anxiety hysteria, 2; obsessional neurosis, 2.

Although treatment has not lasted long enough for any results to be reported, it may be said that the patient first to be treated is now showing definite signs of improvement and will, in all probability, ultimately recover. This patient, a young man of 26, was recently admitted for the third time suffering from manic-depressive psychosis. For the last 6 years this patient has suffered from periodic attacks of acute depression which often lasted for 6 to 9 months, and during which he was utterly miserable, frightened and hypochondriacal. At times he was terrified lest he should be driven to kill everybody near him, accused himself of all manner of crimes, and on several occasions seriously contemplated suicide. On one occasion he actually commenced a serious mutilation of himself.

At the beginning of treatment he was quite resigned to his condition, hopeless about the future and felt sure he would have to spend the rest of his life in a mental hospital.

After five months of treatment his periods of depression occur less often and are less acute, he is not so frightened of meeting people and enjoys social intercourse much more. Thoughts of suicide obsess him only very rarely. No less important is the fact that he has now some insight into the nature and causes of his illness and as a consequence he is much more hopeful about himself and is eagerly looking forward to taking his place in the world. It may be added that his is the most severe of the cases being treated.

The value of psychotherapy in such cases lies in the fact that in contradistinction to other forms of treatment it aims directly at the mental condition of the patient with the purpose of radically removing the causes of the abnormal mental state. An important condition required is willingness and co-operation of the patient, a condition fulfilled in the majority of our voluntary patients of whom there were 144 admitted last year.

It is to be hoped that it will be possible to substantially increase the number of patients for such treatment in the near future.



(c) *Epilepsy*.—Following the satisfactory findings in the treatment of epilepsy with Prominal (Bayer) during 1936, Dr. Hughes has continued this form of treatment and applied it to all his cases of epilepsy, with the exception of 3 where, for other reasons, it was contra-indicated.

The same satisfactory results have been obtained both as regards reduction in the number of fits and the improved behaviour of the patients. The dosage in 3 cases had to be increased to 4 tablets (gr. 3) daily in order to control the attacks, but in each case such dosage has not been necessary for more than a fortnight.

(d) *Menstrual Disorder*.—Amenorrhea has been treated during the year by means of hydrosoluble ovarian substance agomensin (Ciba). Dr. Hughes has found that the effective dosage in the majority of cases was 6 tablets (gr.  $\frac{1}{3}$ ) daily. He also reports that positive results were obtained in 30 per cent. of the cases and in these one-third only showed mental improvement.

(e) *Ergotamine Tartrate*.—Dr Hughes has investigated the effect of ergotamine tartrate in cases of extreme restlessness exhibiting destructive and suicidal tendencies. It is too early as yet for any detailed analysis of observations to be made in the 18 cases treated. These cases, however, appear to have responded favourably following a 10 days' course of 1 mgm. daily, administered orally.

#### XXIX.—FROM THE GLOUCESTER COUNTY MENTAL HOSPITAL.

*Laboratory Report*.—Communicated by the Medical Superintendent.

The following investigations were made during the year :—

Blood : calcium, 1; counts, 25; culture, 1; films for malarial parasites, 4; gonococcal complement fixation test, 1; Kahn, 25; sugar, 8; urea, 1; Wassermann reaction, 206; Widal, 197. C.s.f., complete, 7. Faeces : bacteriological, 268; occult blood, 7; T.B., 10. Milk : total count, B. coli, and fat per cent., 51; Pus : bacteriological, 2. Sputum : T.B., 17. Swabs : conjunctival, bacteriological, 1; throat, bacteriological, 4; throat, Klebs Loeffler bacilli, 53. Tissue for microscopic examination, 3. Urine : bacteriological, 6; chemical, 432. Vomit, chemical, 1.

#### XXX.—FROM THE HAMPSHIRE COUNTY MENTAL HOSPITAL, PARK PREWETT, BASINGSTOKE.

*Report on Pathological and Clinical Investigations*.—By Dr. V. LINDLEY CONNOLLY, D.P.M., Medical Superintendent.

A.—*Routine Work of the Pathological Laboratory*.

*Pathologist*.—Dr. I. ATKIN, D.P.M.; *Laboratory Assistant*.—Mr. S. DAVENPORT.

This work is steadily increasing and shows a total of 4,817 examinations as compared with 1,068 in 1929. This year's work has been particularly heavy owing to a diphtheria outbreak.

Urine : routine examinations, 869; microscopical, 234; blood, 58; albumen estimations, 22; sugar, 94; ketone bodies, 121; bacteriological, 13; for bile, 14. Blood : complete counts, 63; red cell count, haemoglobin, 51; sugar tolerance curves, 2; sugar estimations, 18; urea, 116; calcium, 64; sodium, 5; cultures, 4; malarial films, 16; agglutination tests (macro), 158; micro-Widal reactions, 284; micro-Meinicke, 278; Kahn reactions, 256; Van den Bergh reactions, 5; fragility tests, 4. C.s.f. : complete (cell count, globulin, Boltz, etc.), 16; gum mastic, 8. Bacteriological Examinations : pus and other pathological fluids, 33; throat swabs, 972; milk, 40; well, tap water, 7; sputa, 77; faeces, 51; rectal swabs, 390. Miscellaneous : faeces for occult blood and microscopical, 20; histologic sections, 14; autogenous vaccines, 4; Lowenstein-Jensen cultures for T.B., 81; urethral swabs, 2; Friedman pregnancy tests, 3; animal inoculations, 36. Autopsies, 34 (40 per cent. of deaths).



*Blood Examinations of New Admissions* (Micro-Meinicke, Kahn, Micro-Widal).—Of 256 patients tested, 22 gave positive micro-Meinicke reactions, and 17 positive Kahns. Of the 22, 19 gave a positive W.R. The 5 disagreements read as follows :—

			Micro-Meinicke	Kahn	W.R.
Two cases	...	...	+	—	+
Three cases	...	...	+	—	—

The micro-Widal test against typhoid yielded no significant titre in any of the new admissions.

*Milk*.—Milk was examined regularly during the year. The inoculation test for tuberculosis was positive on 2 occasions and the cow at fault was discovered by further investigation in each instance.

*Water Supply*.—The well and tap water was examined at regular intervals. The minimum amount of well water giving a positive B. Coli test was never less than 35 cc. The tap water (after chlorination) showed a high degree of purity, B. Coli being always absent in 50 cc. and the Agar Count less than 10 colonies per cc.

*Dysentery*.—There were 3 cases during the year, 2 in "D" Ward (Flexner Z and X) and 1 in V.6 (Flexner Z). Rectal swabs of all the patients in these wards and of all those on dysentery cards proved negative.

#### B.—Diphtheria Outbreak.

There was an epidemic throughout the year involving 13 female nurses and 6 female patients. Antitoxin in liberal doses was administered early in every case and the only complication noted was palatal paralysis. One elderly female patient, who had received 80,000 units, died from a superadded streptococcal infection.

The measures taken :—

(1) As each new case occurred, all contacts within the incubation period, patients and nurses, were swabbed, and carriers were housed in the isolation unit until at least 4 swabs at weekly intervals were negative. Twelve nurses and 8 patients proved to be temporary or intermittent carriers and were thus treated. The pathogenic power of the organisms harboured by one carrier was tested and found to be virulent: 1 cc. of a 24 hours broth culture killed a 250 gm. guinea pig in 40 hours. The source of the epidemic was traced to a patient who was admitted 9 days before the first case occurred and she proved to be a persistent carrier. Her condition was cured by tonsillectomy.

(2) All patients and nurses of each ward where a case occurred, all possible contacts and all new female admissions were inoculated with .5 cc. A.P.T., from the start. Subsequently all the female employees of the hospital were inoculated. A Schick test performed 6 months later revealed that 13 per cent. still remained positive and the female staff were therefore given a second inoculation of .5 cc. A.P.T. Four nurses proved to be unduly sensitive and developed sterile abscesses, one of which had to be incised, but they all healed satisfactorily. In all about 650 inoculations were performed.

#### C.—Somnifaine Narcosis.

Four cases were able to undergo a full course of 12 to 14 days :—

1. Acuta mania (E.A.C.)	...	...	...	Discharged "recovered."
2. Schizophrenia (F.E.B.)	...	...	...	No improvement.
3. Melancholia (A.V.H.)	...	...	...	Discharged "recovered."
4. Acute mania (L.S.C.)	...	...	...	Discharged "relieved."

Insulin and glucose were given with each injection and no ketosis occurred. One patient had a temperature of 99.4° on one day, and another vomited early in the treatment, but both were able to complete the course. The most



striking case was the first, an acutely violent, destructive and faulty patient who became lucid within 3 days of the termination of narcosis. The results are encouraging, and a more extensive trial is planned for the following year.

#### D.—*Out-Patient Treatment.*

Under Doctors Atkin and Gilchrist a session is held weekly at the Royal Hampshire County Hospital, Winchester. The services of a social worker are utilized in the investigation of the patient's environment and in the finding of suitable employment for certain types of patients. Four beds are available at the Basingstoke Infirmary for patients requiring closer observation but whom it is not considered advisable to admit into a mental hospital.

				Male	Female	Total
Number of patients attending	...	...	...	12	24	36
Number of attendances	...	...	...	42	69	111
Classification of new cases : psychoses, 11; psychoneuroses, 11; recovered (on trial), 5; juvenile delinquency, 4; oligophrenia, 2; epilepsy, 1.						

Of these, 6 were admitted on a voluntary and 1 on a certified basis to Park Prewett Mental Hospital, 4 to the Basingstoke Infirmary and 1 to a neurological hospital.

#### E.—*Publication.*

“Post-Partum Macrocytic Anaemia Associated with Confusional States.”  
By I. Atkin, *Lancet*, February 19th, 1938.

### XXXI.—FROM THE HEREFORD COUNTY AND CITY MENTAL HOSPITAL.

#### *Pathological and Clinical Report.*—By Dr. T. E. BURROWS, D.P.M.

During the year 1937 the usual routine laboratory work has been carried out and 2,203 examinations were made :—

Urine : routine chemical, 358; microscopical, 105; sugar and ketones, 20; bacteriological, 15; miscellaneous, 8. Faeces : bacteriological, 123. Blood : Wassermann, 15; Meinicke, 173; agglutinations, 688; culture, 2; sugar, 4; urea, 2; calcium, 109; haemoglobin and colour index, 39; red cell count, 39; white cell count, 37; differential count, 77; Schilling index, 77; sedimentation rate, 66; Van den Bergh, 3. C.S.F. : Meinicke, 9; Lange, 9; gum mastic, 9; cell count, 10; protein, 10; Pandy, 10; Nonne Apelt, 10; bacteriological, 4. Pus—bacteriological, 14. Sputum—bacteriological, 8. Swabs—bacteriological, 9. Stomach contents: bacteriological, 5; chemical, 5. Hairs—parasitology, 3. Vaccines : bottles containing 10 cc.s, 26. Water : bacteriological, 8; chemical, 13. Milk : bacteriological, 8; chemical, 8. Disinfectants : Rideal Walker, 3. Histological sections, 34. Post-mortems, 28 (52.8 per cent. of deaths).

*Benzedrine.*—Benzedrine sulphate has been used in a number of cases of depression.

There is little doubt that its effect is beneficial in a considerable proportion of patients who are in the depressive phase of a manic-depressive psychosis, and improvement has been obtained in an occasional case of involutional melancholia where the agitation was not very marked.

The disappointing aspect of this method of treatment appears to be that the improvement is maintained only so long as the drug is being administered and as soon as medication is withheld the patient tends to relapse into the former condition.

There is insufficient evidence as yet to show that the duration of the illness is affected by benzedrine.



One case of post encephalitic Parkinsonism with such marked rigidity that walking without support had been very difficult, and at times impossible, for 18 months, was given benzedrine sulphate in doses of 10 mgm. 3 times a day, in addition to the usual stramonium and hyoscine.

There resulted such marked reduction in the rigidity and improvement in the voluntary control of the larger joints that the patient was enabled to participate in the weekly dances.

*Oestrus producing hormone.*—A few female cases suffering from involutional melancholia have been treated with large doses of Progynon both parentally and orally at the same time. The results on the whole have been disappointing although there has occasionally been some improvement in the physical condition following the treatment.

*Acetyl Choline and Ephedrine.*—This treatment has been carried out in several cases of mania and an occasional case of schizophrenic excitement.

There was no obvious improvement in any of the cases which could be considered as resulting from the treatment.

Observations have been made with regard to the effect on the blood calcium of acetyl choline and doryl, both alone and in conjunction with Prostigmin. As a result of the injection of these drugs a slight fall in the blood calcium occurred but in no case under investigation was it lowered beyond the normal limits. Furthermore, the reported synergistic action of these drugs on the pulse rate and blood pressure was found to be slight and in no case did we observe the great drop in blood pressure and blood calcium described by other workers.

*Cardiazol.*—This drug is at present being tried out in cases of schizophrenia but it is too early at this stage to quote results.

*Typhoid Carriers.*—There still remain 1 carrier of *B. typhosus* and 2 of *B. para B.* who have given positive results throughout the year.

Bacteriological examination of all new admissions is carried out and no new cases have been detected.

Prophylactic inoculation of the whole staff and of certain patients is performed as a routine and no cases of enteric fever have occurred amongst the patients or staff.

## XXXII.—FROM THE LINCOLNSHIRE COUNTY MENTAL HOSPITAL, BRACEBRIDGE.

*General Report.*—By Dr. JOHN MACARTHUR, D.P.M., Medical Superintendent.

### *Laboratory Work.*

The following is a summary of the routine laboratory work carried out during the year :—

Urines: routine tests for S.G., albumen, sugar, pus, blood and acetone, 663. Blood: Widal's, 374; Kahns, 133; Meinicke, 180; blood counts, 66; blood sugars, 45; Van den Bergh, 1; blood cultures, 1. C.S.F.: Kahn test, 6; Lange's test, 28; globulin test, 28; albumen test, 28; total protein, 28; cell counts, 28. Bacteriological: urines, 19; pus, 7; sputum, 7; throat swabs, 14; blood, 1; pleural effusion, 2; faeces, 104. Malarial parasites (count): 10. X-ray examinations, 108 patients. Post-mortem examinations, 62 (68 per cent. of deaths).

### *Biarsamide Therapy.*

Work is proceeding with Biarsamide therapy in dementia paralytica and convulsion therapy (von Meduna) in schizophrenia. So far no conclusions have been drawn, though clinical findings in the case of Biarsamide therapy are being carefully correlated with the serological findings.



## XXXIII.—FROM THE KESTEVEN MENTAL HOSPITAL, RAUCEBY, SLEAFORD.

*General Report.*—By Dr. N. K. HENDERSON, D.P.M., Medical Superintendent.

*Laboratory Work.*

The following is a summary of the routine laboratory work carried out during the year :—

Urines : routine, 654; microscopic, 30; sugar, 6; T.B., 7; culture, 1. Faeces : bacteriological, 4; occult blood, 5. Blood : Wassermann, 81; Kahn, 1; counts—red, 10; white, 10; film, 1; sugar, 4. C.S.F. : Wassermann, 11; Lange, 11; cells, 8; protein, 1. Bacteriological : swabs—K.L.B., 14; nasal, 4; sputum examinations, 3; scrapings for culture, 8. Sections and reports, 16. Post-mortem examinations, 21 (50 per cent. of deaths).

*Autopsy.*—The following is a brief history of a female patient who died from a cerebral tumour (tuberculoma).

A female patient, aged 42 years, 9 months before admission had a seizure which resulted in complete paralysis of the right side. She recovered from this, but 3 weeks before admission a second seizure occurred, followed again by a severe right sided hemiplegia and accompanied by nominal aphasia and reversal of sleep rhythm.

On examination she had a right spastic paresis, very ataxic and aphasic, no visual field defect, no papilloedema nor optic atrophy. Mentally she was extremely confused, inaccessible and in need of every nursing attention. Blood, Wassermann—negative. C.S.F. : W.R. negative : globulin : large excess; total protein, 56 per cent. : Lange curve 34433222100 : Cells 8/cmm.

Three weeks after admission she improved to the extent of walking with the aid of a stick. The aphasia greatly diminished, the confusion lessened but the reversal of sleep rhythm persisted.

Five days before death she relapsed.

At post-mortem the brain weighed 48 ounces. The meninges, vessels and sulci were normal and no abnormality of the ventricles. In the left cerebral hemisphere a hard, nodular tumour was found partly replacing the corpus striatum. Histologically the tumour was tuberculoma.

*X-ray Department.*—Recently an X-ray unit was installed. The apparatus is chiefly used for the diagnosis and position of set fractures, skiagrams of chest and detection of infected sinuses.

*Syphilis.*—Malarial therapy with other antisyphilitic drugs have been used throughout the year. One female patient on admission had a luetic curve but after a year's treatment changed to the paretic type.

*Epilepsy.*—Prominal has been used in a limited number of cases with encouraging results. One patient actually remained free from fits for 12 months.

## XXXIV.—FROM THE MIDDLESEX COUNTY MENTAL HOSPITAL, NAPSURY, ST. ALBANS.

*Report of the Pathological Department.*—Communicated by Dr. A. O'NEILL, O.B.E., Medical Superintendent.

*Routine Investigations.*

The following routine investigations were carried out during the year :—

Haematology : Arneth count, 1; bleeding time, 1; blood grouping, 2; coagulation time, 1; complete count, 60; haemaglobin estimation only, 4; parasites, 1; prothrombin time, 1; reticulocyte count, 5; sedimentation rate, 1. Biochemical examination of blood : bromides, 13; calcium, 1; Fouchet's reaction, 3; Meulengracht's index, 3; sugar, 9; urea, 13; uric acid, 1; Van den Bergh, 3. C.S.F. : routine examination, 39; calcium, 1. Urine : acetone, 21; albumen



(quant.), 2; bile salts and pigments, 3; indican, 1; routine, 710; urea, 4; urea concentration factor, 2; Van Slyke's urea clearance test, 4; urobilin, 4. Stools: occult blood, 9; routine, 16; split fat, 2; Triboulet's test, 1. Miscellaneous: effusions, 3; fractional test meal, 4; smears, 6. Bacteriology: agglutination test, 10; cultures—blood, 5; miscellaneous, 15; stools, 261; urines, 216; throat swabs, 137; tubercle bacilli—effusions, 11; stools, 61; sputa, 71; urine, 4. Serological: M.K.R., 2; reaction, 438; M.K.R., 2; modified, 36; Wassermann reaction, 453. Morbid anatomy: biopsies, 4; histological examination of post-mortem material, 243. Post-mortem examinations, 101 (100 per cent. of deaths).

### Autopsies.

The following cases are deemed of sufficient interest to warrant recording in brief:—

Case 1. *Alzheimer's Disease: Lobar Pneumonia.* (6173/NG 35). A female, aged 57, a widow, was admitted to hospital on August 14th, 1933, with a history of 3 months' mental symptoms including depression, gradual loss of memory, disorientation as to time and place. Her daughter, however, thought that she had been "different" ever since an attack of influenza 6 years previously, and said she had seemed depressed and complained of loss of memory. On admission she was confused and disorientated, did not know where she was or where she had come from. There was almost complete loss of memory. She was dull and vacant and wandered aimlessly about the ward. Physical examination revealed nothing abnormal except dental sepsis. Her weight was 7 st. 3 lb. Blood Wassermann reaction was negative. She became gradually more demented and by July 2nd, 1935, she had incontinence of urine and faeces. On the morning of September 21st 1936, she was found in bed unconscious with stertorous breathing. No abnormal physical signs were elicited except some abdominal rigidity. She recovered from this but gradually became weaker and died on January 18th, 1937. *Post-mortem* revealed a lobar pneumonia involving both right and left lower lobes with early abscess formation. The brain showed wasting of the frontal and parietal lobes and weighed 1,180 grammes. Histologically large numbers of Redlich-Fischer plaques were found and the neurofibrillary change of Alzheimer.

Case 2. *Alzheimer's Disease.* (6829/NG 51). A female, aged 58, married, was admitted to hospital on October 16th, 1936, with a history of mental symptoms beginning 2 years previously with gradual loss of memory, loss of interest in her family and eventually delusions of persecution. Epileptiform fits had begun 1½ years before and there were 3 fits previous to admission.

On admission she was confused, rambling and incoherent, could answer a few simple questions, but could give no coherent account of herself. Memory very poor. Talked to imaginary voices. Very restless. Faulty in habits.

She had 3 epileptiform fits soon after admission. Physical examination revealed nothing except dental sepsis. Her weight was 6 st. 4 lb. Blood Wassermann was negative.

She continued to be very dull and confused and had to be spoon fed. On November 14th she had slight pyrexia for 2 days, for no obvious reason, and seemed very much weaker. She was now confined to bed. On January 28th, 1937, she had another fit and afterwards became very tremulous and showed some choreiform movements of the upper limbs. No other neurological signs could be elicited. On January 29th, lumbar puncture was performed, but the C.S.F. proved normal in every way. She rapidly demented, had another fit on February 24th and died on March 2nd.

*Post-mortem* revealed a small heart with advanced myocardial degeneration. There were several patches of atheroma in the aorta. The brain was wasted, the atrophy being especially marked at the frontal poles and inferior parietal lobules. There was slight internal hydrocephalus. The weight was 1,050 grammes. Histologically the characteristic features of Alzheimer's disease were found.



Case 3. *Congestion of the Lungs : Alzheimer's Disease.* (6817/N.G.54.) A female, aged 61, was admitted to hospital on September 23rd, 1936, with a history of 3 months' mental illness. She had a lifelong history of dyspepsia for which she eventually had her gall bladder removed, and made a good recovery from the operation. It was soon after leaving the hospital that her husband noticed a mental change, she became quarrelsome and cantankerous and later noisy, restless and confused.

On admission she was confused, unable to give any account of herself, wandered away when spoken to, muttered to herself and kept asking if she could "go to the party."

Physically she appeared healthy except for signs of myocardial degeneration. The blood Wassermann and Meinicke reactions were negative.

She continued to be very restless and confused and was difficult with her food.

On February 19th, 1937, she had a cough, dyspnoea and oedema of the ankles.

Death occurred suddenly on March 4th.

*Post-mortem.*—The body was that of an emaciated female, weight 4 st. 6 lbs. There was a healthy subcostal operation scar. Her heart was small and showed brown induration of the myocardium, the valves healthy and the coronary arteries diffusely thickened. The aorta showed slight patchy atheroma. The lungs were congested at the bases and the smaller bronchioles exuded a thick pus. The liver was very congested and fatty; the gall bladder was absent and in the common bile duct there was the head end of a rubber catheter draining into the duodenum. There were no adhesions or inflammation. The spleen was enlarged by half and was soft and diffuent. The brain weighed 1,300 grammes. There was atrophy of the frontal poles and inferior parietal lobule, the leptomeninges being slightly thickened. The lateral ventricles were moderately dilated and the choroid plexuses cystic. Histological examination showed the changes characteristic of Alzheimer's disease.

*Commentary.*—Apart from the histological changes in the brain, the clinical similarity between these 3 cases was very marked and even the likeness in facies was striking, Cases 2 and 3 seem, however, to have taken an unusually rapid course. It is interesting to note that the frequency of this disease for the year (approximately 3 per cent. of deaths) compares with that reported by Rothschild and Kasanin at the Forborough State Hospital, U.S.A., who found this disease in 4 per cent. of 234 necropsies.

These cases are to be described elsewhere.

Case 4. *Bacillary Gastro Enteritis.* (6973/N.G. 118). A female, aged 57, was admitted to hospital on May 8th, 1937, with a history of 3 days' mental excitement, shouting, singing and throwing things out of the window. On admission she was resistive, throwing herself about and tearing off her clothes. Faulty in her habits. Physical examination revealed nothing abnormal and the blood Wassermann was negative.

Two months later she had become quiet and depressed, and was now difficult with her food.

On November 8th she complained of abdominal pain, vomited bile stained material and had diarrhoea. The temperature rose to  $103.4^{\circ}$ . She rapidly became worse, there was a generalised abdominal tenderness with slight distention, vomiting and diarrhoea persisted with pyrexia  $104.5^{\circ}$ . An organism was isolated from both urine and faeces giving the biochemical and cultural characteristics of the Salmonella group and agglutinated B. Aertryche H. Serum up to a titre of 1 : 1250. She died, however on November 13th.

A *post-mortem* revealed only a slight degree of congestion of the gastric mucosa, but this was more marked in the lower part of the small intestine. Peyer's patches were not affected. In the colon there were numerous, small, scattered, superficial ulcers. There was no apparent reaction on the external



surface of the intestine. The other organs were congested. A culture taken from the spleen grew the same organism as had been found in the urine and faeces.

*Commentary.*—This was an isolated case of gastro-enteritis occurring in a ward of 56 patients. It proved impossible to establish definitely the source of the infection. The hospital food seems to be ruled out as this patient ate the same food as the others. The day before the onset of the disease she had been given some breakfast sausage by a visitor, and it was discovered afterwards that this might have become contaminated by mice before being brought to the hospital. On the other hand, some of this sausage was also eaten by the visitor at the same time as the patient, without ill effect. Lastly, the extremely virulent nature of the attack with death in 5 days seems to be unusual.

### XXXV.—FROM THE MIDDLESEX COUNTY MENTAL HOSPITAL, SHENLEY, ST. ALBANS.

*General Report.*—Communicated by Dr. E. J. C. HEWITT, D.P.M., Deputy Superintendent.

#### *Report of the Pathological Laboratory.*

Total examinations made during 1937 were 3,134; the details are as follows :—

Biochemical : blood counts : complete, 150; differential, 90; reticulocytes, 18; Arneth index, 5; blood calcium, 13; blood bromine, 14; blood cholesterol, 16; blood sugar, 312; blood urea, 15; Van den Bergh, 2. C.s.f. : cytological and chemical with Wassermann and Meinicke test, 23. Serological : blood Wassermann and Meinicke, 1,322; agglutination tests, 5. Urines : routine, 710; urea concentration, 3; faeces for fat, occult blood, etc., 35; Ascheim-Zondek pregnancy test, 2. Bacteriological : blood, 7; faeces, 25; urines, 60; throat swabs, 23; sputa, 100.

*Histological.*—Seventy sections were prepared, mostly paraffin, and in most cases from post-mortem material; 2 sections were prepared from tissues removed at operation.

Several pathological and normal specimens are being prepared and mounted for teaching purposes in the new teaching unit.

Post-mortem examinations numbered 103 (81 per cent. of deaths).

A bacteriological and chemical examination of the hospital water supply showed this to be well within normal limits, and the natural hardness of the water was being successfully dealt with by the water softening plant.

The annual investigation of the laundry processes was made and proved these to be efficient, as the following brief report shows :—

#### *Details of test carried out on Sterilizing and Washing Plants.*

1. *Washing Plant.*—The following specimens were collected with aseptic precautions from the washing plant : Samples of (1) “hot soap” wash; (2) hot rinse; (3) first cold rinse; (4) second cold rinse.

These samples were left to stand for a few hours to allow the heavy particles to sediment. The upper layer of fluid was then decanted and cultures were made from the series of deposits on nutrient agar.

The results of the cultures were as follows : (1) no growth; (2) no growth; (3) One or two small colonies of coliform organisms; (4) no growth.

*Inference.*—The materials are sterilized by the hot soap wash. The few colonies found in the culture from the first cold rinse are contaminants.

2. *Sterilizing plant.*—Three pieces of lint, two of which were heavily infected with *B. coli* were wrapped in a towel and subjected to the ordinary sterilizing procedure. Following this they were removed to the laboratory and each piece was placed in a tube of nutrient broth and incubated for 24 hours.

In each and every case the culture was sterile.



*Clinical.*

Continued use is being made of Somnifaine narcosis with and without paraldehyde, and a moderate degree of success can be attributed to this form of therapy.

Hydrotherapy is, at present, limited to the use of continuous baths. It is hoped that this year will see the completion of Hydrotherapy units, when further treatment will be started.

Hypo-glycaemic shock by insulin and cardiazol therapy have not been employed but are being considered as possible treatments in the near future, when further accommodation is available.

Femergin (Ergotamine tartrate) has been used in certain cases showing signs of autonomic imbalance with upset of calcium metabolism; results up to date are encouraging.

Benzedrine sulphate was given a fairly extensive trial during this year, and in some cases appeared to have a stimulating effect on depressed cases.

Aminobenzenesulphonamide has been tried with success in streptococcal tonsillitis, and in *B. coli* cystitis, and in both cases good results have been obtained.

Preparations of Ovarian Follicular extracts continue to be used with success in cases of amenorrhoea.

A retrospective summary of all cases admitted to this hospital with analysis of the recovery rate following different forms of treatment has been started, and it is hoped to complete this during the present year.

Radiological examinations to the number of 153 were made during this year.

In the dental clinic 198 patients and 38 members of the nursing staff received treatment.

At the Out-Patient Centre at the Central Middlesex Hospital 819 cases attended, and of this total 194 were new cases.

*Autonomic Imbalance in Schizophrenia.*—By Dr. O. FITZGERALD, D.P.M.

Fourteen selected cases of schizophrenia were studied, all of whom had physical signs suggesting imbalance of the autonomic nervous system, with the object of finding whether there was any relationship between the physical signs and the mental state in such cases.

The following investigations were made :—

1. Routine daily examination of autonomic nervous system.
2. Blood sugar and blood pressure responses to the intravenous injection of ephedrine.
3. A search for cholinergic factors in the blood.
4. A comparison of the cholinesterase content of specimens of sera.

Although no positive findings have been obtained, the study has yielded many useful suggestions for future investigations.

XXXVI.—FROM THE MONMOUTHSHIRE MENTAL HOSPITAL, ABERGAVENNY.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following is a summary of the routine laboratory work carried out during the year :—

Urines : routine, 571; sugar estimations (quantitative), 32; bacteriological, 81; microscopical, 149; acetone bodies, 30. Faeces : bacteriological for dysentery and typhoid, 966. Blood : total counts, 26; Widal reactions, 8. C.S.F. : complete examinations, 8; cell counts, 8; protein, 8; colloidal gold, 8. Bacteriological : sputum, 20; blood cultures, 3; pus, 22. Cultures (post-mortem) : gall bladder, 2; lung, 3. Specimens preserved, 5; sections cut and stained, 2.



## XXXVII.—FROM THE NORFOLK COUNTY MENTAL HOSPITAL.

*General Report.*—By Dr. O. G. CONNELL, M.C., Medical Superintendent.

A.—*Pathological and Biochemical.*

## Summary of examinations :—

Blood : Mommensen tests, 234; counts, 22; serum agglutination tests for T.A.B. dysentery and br. abortus (Widal), 228; serum flocculation precipitation tests (Kahn), 233; bromide estimations, 24; sugar estimations, 27; urea, 3. C.S.F. : Kahn, 13; cytological, 15; globulin, 36; Lange colloidal gold curves, 12. Urine : routine examinations (alb. Sug. sp. g. rea. dep.), 194; microscopical, 102; sugar estimations, 15. Sputum, 13. Faeces : culture for T.A.B. etc., 956; identification of isolated bacteria with sera (Widal), 15; concentration methods for T.B., 8; swabs, pus, etc. : culture, 8; film, 15. Vaccine : One only prepared. Blood : groupings, 10; sedimentation 1; malarial examinations, 4. X-ray films, 79.

B.—*Clinical.*

*Brucella Abortus Infection.*—The widespread occurrence of this infection and the great variety of symptoms associated with it are now more fully recognized. Neurasthenia and depression are among the conditions mentioned. This being an agricultural county and the majority of the male patients having been occupied on the land, it was thought advisable to investigate all admissions for evidence of abortus infection. Using the standard cultures of the Oxford Laboratory the blood has been examined in 116 cases so far, but without a single positive result. In addition, in all cases of continued pyrexia at this hospital a Widal reaction is carried out and this test includes dysentery and abortus as well as the typhoid group. No evidence of abortus infection has been obtained, so that the part played by it here must be insignificant, as judged by the usual agglutination test.

*References.*

- O'REILLY, J. J. *Jl. Ment. Science*, 1931, 77, 256.  
FISCHER, R. and SCHENK, P. : *Munch Med. Wschr.*, 1936, 263.  
MENTON, J. : *Brit. Med. Jl.*, 1937, 1273.

*Pathological Granulation of the Leucocytes in Mental Disorder (Mommensen's Granules).*—The investigation of this on all admissions continues and the method used was described in the last report. Since then 234 cases have been examined, but with only one positive result. This was a case of alternating insanity, admitted for the fourth time. She presented nothing suggestive of a toxic condition and made a rapid recovery. These results again give no support to the views expressed by continental workers. So far there have been no reports noted in this country or America.

*References.*

- Mommensen, H. : *Klin Wchnschr.*, 1926, 5, 844.  
Mommensen, H. : *Klin Wchnschr.*, 1929, 8, 2420.  
Efremoff, D. I. : Abstract in *Zentralbl. f.d. ges. Neurol.*, 1932, lxiv, 779.  
Rizzatti, E., and Levi, M. S. : Abstract in *Zentralbl. f.d. ges. Neurol.*, 1934, lxx, 402.  
Rizzatti, E. : Abstract in *Zentralbl. f.d. ges. Neurol.*, 1934-5, lxxiv, 234.  
Ganfini, G. : *Riv. sper. di freniat.*, 1934, lviii, 1278-1283.

*Prominal in Epilepsy.*—Nine patients suffering from epilepsy have been treated with Prominal, each having a daily dose of gr. vi. The average



number of fits per month for the previous 6 months have been recorded and compared with the number occurring in the months following the start of prominal :—

Name.					Average per month.	
					Before treatment.	After treatment.
W.V.B.	...	...	...	...	7.0	0.8
W.B.	...	...	...	...	18.5	8.0
V.D.	...	...	...	...	7.3	0.4
G.H.	...	...	...	...	30.5	0.5
S.T.	...	...	...	...	26.2	17.2
W.W.	...	...	...	...	7.0	2.5
F.W.	...	...	...	...	24.0	0.0
E.D.	...	...	...	...	11.2	4.2
A.L.	...	...	...	...	76.6	31.1

The best result has been with F.W. who averaged 24 fits per month on a mixture of bromides and since having prominal has had no fit in 38 weeks. The only effect prominal appears to have had other than reducing the number of fits is to increase the aggressiveness of many of the patients having it.

*Treatment of General Paralysis with Dmelcos Vaccine, Tryparsamide and Campolon* :—This treatment was carried out in three males and one female. Of these, one already advanced and of the dementing type, improved considerably, in spite of a poor pyrexial response and has been discharged, though not yet fit to resume his occupation. The female case was unable to have a full course of Dmelcos owing to her heart condition, but treatment with Tryparsamide and Campolon has given marked improvement and her mental state is almost normal. The two other cases have not responded so well, but in both the disease appears to have been arrested. In one of these there is a basis of congenital mental defect also.

*A Case of Bromide Intoxication*.—The bromide content of the blood has been estimated in a number of admissions, but is not now carried out as a routine. In one case, a female aged 62 years, presenting severe toxic symptoms amounting to partial coma and with a history of bromide administration before admission, the figures obtained indicated bromide intoxication. They were as follows :—

Blood Bromide (Colorometric Method) :

17.7.37	: 217.4	mgms. per cent.
22.7.37	: 333.3	„ „
28.7.37	: 202.0	„ „
4.8.37	: 181.8	„ „
12.8.37	: 235.3	„ „
16.8.37	: 97.6	„ „
1.9.37	: 92.1	„ „
8.9.37	: 77.2	„ „

Cerebro-spinal Fluid bromides :

17.7.37	: 33.3	mgms. per cent.
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This comparatively low figure contrasts with that of the blood on the same date. The rise in the blood bromide after admission was probably due to the administration of saline fluids for the few days following the result of the first blood examination. The treatment was discontinued for a time until the figure had fallen to a lower level. The mental condition of the patient rapidly cleared revealing an underlying melancholia with hypochondriacal ideas. The patient improved slowly and recovered sufficiently to go home, but has since returned somewhat depressed and still hypochondriacal.



## XXXVIII.—FROM THE NORTHAMPTON COUNTY MENTAL HOSPITAL.

*General Report.*—By Dr. E. D. T. HAYES, D.P.M., Medical Superintendent.

A.—*Laboratory Work.*

The following is a summary of the 6,305 examinations made during the year :—

Blood : Kahn test, 502 (54 positive); bromide, 224; urea, 214; sedimentation, 266; counts (r.b.c., w.b.c., Hb., C.I, reticulocytes, halometer, differential), 322; sugar, 39 (including 5 curves); grouping, 15; smear for malarial parasites, 17 (4 positive for B.T.); culture, 2; Dreyer's test, 6; Van den Bergh, 1. C.s.f. : 45. (The examination consists of cell counts, protein estimation, glucose, Kahn test, Lange colloidal gold curve). Faeces : culture, 1,215 (one positive for B. dysentery Y); examination for t.b., 33 (one positive); occult blood, 6. Urine : culture, 2,111 (one positive for B. typhosus); routine, 2,038; urea, 46; sugar (estimations), 51. Throat swabs, 10; sputum, 7; fractional test meals, 8. Water examinations, vaccines prepared and miscellaneous tests, 27. Post-mortem examinations, 43 (61.4 per cent. of the deaths).

The systematic laboratory investigation of all new admissions has now been carried out for 18 months and it is possible to make a survey of the results over a complete year.

In the majority of cases investigated the result of examination was negative. This is to be expected and is in itself valuable as it prevents waste of time and materials in pursuing unprofitable lines of treatment.

The positive results of investigation have proved more interesting and useful. In 12 patients admitted during 1937 a blood bromide of over 150 mgr. per 100 cc. was found and in seven of these cases the blood bromide exceeded 200 mgr. per 100 cc.

It was considered that bromism was a definite factor in the production of salient features of the mental disorder in these cases.

The routine examination of the faeces of all new admissions led to the detection of a carrier of B. dysentery Y, who was thereupon isolated and prevented from infecting his fellow patients. This hospital is one of the fortunate institutions which remains free from dysentery.

Owing, however, to the presence of large numbers of patients who have suffered from typhoid fever, regular examinations of their excreta are carried out and every patient and member of the staff is re-inoculated with T.A.B. vaccine at intervals of 18 months. All patients are inoculated shortly after admission. The vaccine is prepared in our laboratory from material kindly supplied by Major General Marrian Perry of the Royal Army Medical College.

The presence of unsuspected syphilis has been revealed in several cases by the routine performance of the Kahn test and foci of infection have also been indicated by the routine performance of sedimentation tests.

It is considered that the time and trouble expended in carrying out this work is amply repaid by the detailed information of the condition of each patient which is made available to the medical officer.

Every new admission is examined by the visiting dental surgeon, and the visiting ophthalmic surgeon, and by an ear, nose, and throat surgeon.

B.—*Mental Out-Patient Centres.*(1) *Northampton General Hospital.*

This centre has been operating since January, 1931, and is now conducted by Dr. Joshua Carse, D.P.M., assisted by Dr. F. A. Frank, D.P.M., and Dr. R. W. Maxwell, D.P.M. Three sessions are held each week and during the year 143 new cases (63 males and 80 females) were examined and reports were sent to their doctors.



Those patients who for one reason or another were not considered suitable for out-patient treatment were advised to apply for admission to Berry Wood as voluntary patients.

During the year there were 1,980 attendances at the Centre.

(2) *Northamptonshire Home for Girls.*

Dr. Joshua Carse attends this Home for Maladjusted Girls on one afternoon each week. This is a home approved by the Education Authorities and staffed by trained child-guidance workers. It contains 27 problem children aged from 6 to 14 years, drawn from all parts of the country, who are unsuitable for out-patient treatment owing to the nature of their behaviour difficulties. These children are treated by individual psycho-therapy and helped to adapt themselves in a more normal manner to their environment.

The value of this work as "preventive mental medicine" can hardly be over-estimated for these children show every evidence of developing either criminal or psycho-pathic tendencies. Their response to treatment is very satisfactory, many of them being able to return to their homes and to behave as normal children.

XXXIX.—FROM THE OXFORD COUNTY AND CITY MENTAL HOSPITAL.

*General Report.*—By Dr. R. W. ARMSTRONG, D.P.M., Medical Superintendent.

A.—*Laboratory Work.*

Summary of routine examinations performed during the year :—

Urine, 1,787; blood, 364; cerebro-spinal fluids, 19; sputum, 30; faeces, 86; throat and other swabs, 34; microscopical sections, 274; post-mortem examinations, 45 (68·2 per cent. of deaths).

B.—*Research.*—By Dr. K. O. NEWMAN, Pathologist.

*Non-paretic and paretic blood-serum under varied experimental conditions.* Series of serum dilutions in saline solutions of different concentrations, 50 per cent. glycerin and dextrose solutions were set up against a variety of substrates. Amongst the latter were cortical extracts in ether, chloroform and mastic solutions, further suspensions of cerebral cortex in saline and non-electrolytes. Some of the mixtures were incubated for varying periods at different temperatures. Different globulin fractions of sera were removed. Glycerin glycerophosphate, gold-sol and other colloidal solutions served to indicate occurring changes. Differences between native and inactivated serum were noted. The glycolytic power of different serum dilutions was ascertained and depicted in graphic form. A number of differences between the behaviour of "normal" and "paretic" sera were noted.

*Phenylketonuria.*—Two cases of phenylketonuria, sisters, were in the hospital. The younger of the two, aged 7, died. The relevant organs, including the glands with internal secretion, were microscopically examined. Fatty changes in the liver were observed, further some fibrosis of the capsule of the suprarenal glands. Some atrophy in liver, spleen and pancreas was present. A detailed account of this rare case, apparently only the second in this country on whom a post-mortem has been carried out, is being prepared for publication.

*Pituitary gland.*—The number of the latter organs collected from our hospital material approaches 250. It appears striking how few of them can be described as histologically normal throughout. The lability of the tissue is reminiscent of that of the testis where, as observed by Kyrle on a large material, completely normal histological appearance is rather the exception than the rule. Uncommon features, as for instance the presence of a large isolated cyst in the anterior lobe, were noticed in a number of cases.



## XL.—FROM THE SOMERSET AND BATH MENTAL HOSPITAL, COTFORD, TAUNTON.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following examinations were made during the year :—

Urines : full examination, 149; cultures of catheter specimens, 3; urea concentration tests, 3; glucose tolerance tests, 1. Blood : counts, 2; films, 6; differential, 2; Meinicke clarification reaction, 174. Sputum : for tubercle bacilli, 16; cultural, 4. Fluids from sinuses, 2. C.s.f. : full examination, 16. Faeces : smears, 4; cultural, 4. Throat swabs, 3; cultural, 3. Post-mortem examinations, 60; (63·8 per cent. of the deaths).

During the year histological apparatus, microtomes, paraffin baths, etc., have been installed, and histological sections are now made of the post-mortem material showing special features.

## XLI.—FROM THE STAFFORDSHIRE MENTAL HOSPITAL, STAFFORD.

*General Report.*—By Dr. B. H. SHAW, Medical Superintendent.

*Histopathology of the Cerebellum.*—Further to the summary of observations in my last report on the histopathology of the cerebellum in mental disorder, sections stained as previously described show minute circumscribed atrophic fibrillary oxyphile areas frequently numerous and mainly present in the white matter; they are even more clearly defined in unstained sections and are not detectable in sections stained by the more usual methods, which have the effect of marking them. They have no relation to the administration of sedatives, as 40 per cent. of cases in which they were present had had no sedatives, nor are they a result of post-mortem changes. They have not as far as I am aware been recorded previously and appear to be evidence of obscure vascular or other changes due to the presence of abnormal metabolites or lack of normal hormonal or colloidal balance necessary for the stability of nerve tissue. These areas are almost constant in the cerebellum, or cerebrum in epileptics, frequent in manic depressive states, but absent or rare in schizophrenia, in which the lesion is essentially nuclear. As I have pointed out in my last report, when nerve cells are deprived of oxygen by trauma, changes are observed exactly similar to those occurring pathologically in schizophrenia, and in a publication of mine on "The significance of acidosis in certain nervous disorders" (*British Medical Journal*, May 22nd, 1920) I gave reasons for considering it probable that certain types of mental disorder were due to anoxaemia. Since that time numerous workers have contributed additional facts supporting this contention, for example, it has been demonstrated that oxygen want alone will cause cellular degeneration and even necrosis of nervous tissues, with resultant delusional breakdown. It has also been ascertained that brain tissue in the waking animal requires 90 times more oxygen, weight for weight, than skeletal muscle, and it is therefore obvious that should any failure occur either in the supply of oxygen to, or in the mechanism of its utilization by, the tissues, serious results will be primarily evidenced by injury to the cellular elements of the central nervous system and that the most highly organized co-ordinative units will be the first affected. Under such circumstances if any extra stress and strain occurs demanding greater nervous activity the resulting injury will be correspondingly more grave. It cannot therefore be too highly insisted on that at periods of unstable metabolism, such as early adolescence, or in certain states of physical debility, undue pressure or nervous stress may result in nerve cell injury and degeneration of a possibly irrecoverable nature, depending on the duration or intensity of the stress, and no treatment of any kind can be expected to replace a nerve cell once it is destroyed.

It has been previously demonstrated in this hospital (*Journal of Mental Science*, January, 1931)—and the fact has since been corroborated by numerous observers—that cholesterol, a substance which is related to the defensive



mechanism of the body, is deficient in the blood of persons suffering from schizophrenia. It is probable that this fact may have some relation to the state of tissue anoxaemia to which the pathological changes noted would appear to be due, and in order definitely to determine the causes of this anoxaemia and so to avert its consequences, further research of a very specialistic and advanced nature is necessary.

In addition to numerous observations necessary for certain investigations, the following is a résumé of routine laboratory work :—

Various biochemical tests, 6,399; pathological sections, 128; Wassermann reactions, 143; various bacteriological and microscopic examinations, 1,012; blood examinations, 122; autogenous vaccines, 14.

#### XLII.—FROM THE STAFFORDSHIRE MENTAL HOSPITAL, BURNTWOOD.

*Report of work carried out by Dr. W. J. Kirwan and Mr. Sale.*—Communicated by Dr. WILLIAM REID, Medical Superintendent.

Examinations in the laboratory during the year numbered 1,394, as follows :—

Faeces : for typhoid and dysentery, 642; for T.B., 19. Urines : for typhoid, 52; for abnormal constituents, 224. Sputa, for T.B., 62. Blood : Wassermann reaction, 135; agglutination, 9. C.s.f. examined for Wassermann reaction, cell counts, Lange's gold curve, etc., 15. Sections prepared from p.m. material, 18. Drinking water examined for bacteria, 89. Milk examined for bacteria, 51. Animal inoculations, 21. Throat swabs, pus, vaccines, blood sugars, blood counts, Sigma reactions, etc., 57.

The post-mortem room, mortuary, etc., were re-opened in February, 1937, after replanning and refitting. For the subsequent 11 months, post-mortems were performed on 85·8 per cent. of the deaths.

The cases of general paralysis have not been considered suitable for treatment by malarial blood. Some of them benefited under tryparsamide, but others were too advanced when received and did not benefit.

Two carrier cases of typhoid continue to give positive reactions in the faeces—one more often than the other. The suspected carrier of dysentery continues to give negative reactions in the faeces.

The examinations of faeces were 261 more than in 1936 through the search for a carrier in Ward 2, owing to 1 patient in that ward having developed typhoid. No positive reactions were obtained, although all were examined and the more suspicious patients at frequent intervals.

No Sonne or any other dysentery arose in 1937.

Animal inoculations were employed for tuberculosis in milk and sputa, also for brucella abortus in cows' milk, calves' blood, etc.

#### XLIII.—FROM THE STAFFORDSHIRE MENTAL HOSPITAL, CHEDDLETON.

*General Report.*—By Dr. W. D. WILKINS, Medical Superintendent.

*Laboratory Report.*—

The following is a summary of the routine investigations conducted in the laboratory during the year :—

Blood : Wassermann reaction, 304; Kahn, 36; agglutination tests for B. dys. Flexner, B. typhosus and B. para-typhosus B., 558; complete counts & haemoglobin estimations and differentials, 83; malarial films and platelet counts, 80; Van-den-Bergh sugars, urea and cultures, 43. C.s.f. : Kahn, W.R., colloidal gold, cell counts, globulin and protein estimations, 86. Sputum : T.B., other organisms and culture, 61. Pus : T.B., and culture, 16; various local swabs, 27. Faeces : Flexner, typhoid and para-typhoid, 523; T.B., 197; ova and worms, 4; total fats and occult blood, 7. Test meals : fractional, 8; hair and epidermic scales for tinea, 13. Urine : routine examination, 1,095; culture and T.B., 33; Ascheim-Zondek, 1.



Vaccines : B. typhosus and B. para-typhosus B. 50 c.c. ampoules, 12; sensitized B. dys. Flexner and Sonne, 50 c.c. ampoules, 26; autogenous, 13. Serum : agglutinating for B. dys. Flexner and Sonne, 75 c.c.; intradermal tuberculin tests, cattle, 84; estimations fat in milk, 310; animal inoculations, 50. Histology : pathological museum specimens mounted, 14; paraffin blocks, tissue, 38; paraffin blocks, brain, 41.

*An investigation into the possible Aetiological Significance of certain intestinal bacilli in Mental Disorder.*

Three non-lactose fermenting bacilli were chosen for the above investigation for the following reasons :—

*Bacillus* No. 2.—Complete stools from a number of unselected cases of mental disorder were kept in the incubator for 24 hours and then extracted with various agents. The alcoholic extract in one instance, when used as an antigen, gave positive complement fixation results with the sera from several patients with differing mental states. In one case the titre went as high as 1/960. This stool was then cultured on McConkeys medium, the various organisms were isolated and grown in liquid media. An alcoholic extract was made from each culture and used as antigen against the same sera as used in the first series of complement fixation tests. In the case of one organism the results were identical with those in the first series. It was found to be a bacillus with the following sugar reactions :—

	Lactose.	Dulcite.	Saccharose.	Mannite.	Maltose.	Glucose.	Litmus Milk.
1st day	—	—	—	A	A	A	Sl. A.
2nd day	—	A	A	A	A	A	Sl. ALK.

*Bacillus* "Harrison."—This bacillus was cultured from congested intestinal mucous membrane at a post-mortem on a case with acute confusion at death. It had the following sugar reactions :—

	Lactose.	Saccharose.	Dulcite.	Mannite.	Glucose.	Maltose.	Litmus Milk.
1st day	—	—	—	AG	AG	AG	No change.
2nd day	AG	—	—	AG	AG	AG	Sl. A.

*Bacillus* "Wilding" was cultured from the stool of a case of acute confusion who recovered coincidently with exhibition of an autogenous vaccine. It had the following sugar reactions :—

	Lactose.	Saccharose.	Glucose.	Mannite.	Maltose.	Dulcite.	Litmus Milk.
1st day	—	—	AG	AG	AG	—	No change.
2nd day	AG	—	AG	AG	AG	AG	A

These 3 bacilli were tested against the sera of 76 unselected mental patients for agglutinin reactions with the following results :—

18	positive to <i>Bacillus</i> No. 2	...	...	= 22 per cent.
1	" "	" "	Harrison	...
22	" "	" "	Wilding	...
8	" "	No. 2 and Wilding	...	= 29 per cent.
				= 10 per cent.

The above 76 patients included 27 general paralytics and for comparison of the results in a selected group their results are given :—

9	positive to <i>Bacillus</i> No. 2	...	...	= 33 per cent.
0	" "	" "	Harrison	...
10	" "	" "	Wilding	...
4	" "	No. 2 and Wilding	...	= 37 per cent.
				= 15 per cent.

The sera from 17 normal controls gave the following results :—

4	positive to <i>Bacillus</i> No. 2	...	...	= 24 per cent.
0	" "	" "	Harrison	...
6	" "	" "	Wilding	...
2	" "	No. 2 and Wilding	...	= 35 per cent.
				= 12 per cent.



The faeces from 28 patients in the series of 76 who had shown positive results were cultured. In only 5 were non-lactose fermenting bacilli found and none of those corresponded in their sugar reactions with the 3 bacilli used in the investigation. It seemed unlikely, therefore, that any of these patients were suffering from intestinal toxæmia from any of the three bacilli under investigation. In spite of this, these 28 patients were given a course of 12 weekly injections of vaccine prepared from the organisms which their sera had agglutinated. In none of them was any change either mental or physical noted which could be attributed to the vaccine.

#### *Conclusion.*

If it is accepted that agglutinins in the blood are evidence of previous infection by their specific organisms, then it is a reasonable conclusion that infection by the 3 bacilli under review has been fairly common in mental patients, in this hospital at least. The control results, allowing for their inferior numbers, show that this is at least as common in normal individuals, and, in this series, commoner amongst general paralytics. In spite of the hopeful circumstances under which these three bacilli were isolated, there seems to be no reason at the moment to suppose that they are important aetiological factors in mental disorder.

#### XLIV.—FROM THE EAST SUSSEX COUNTY MENTAL HOSPITAL.

*Report of Clinical and Pathological Investigations.*—By Dr. GEOFFREY SHERA, M.A., Pathologist.

The total output of this department has again increased, this time by 757 tests in all. The hospital work has risen by no less than 1,252 tests in all but the County Public Health work has decreased by 495 tests. In the latter connection, it must be remembered that the recent outbreak of foot and mouth disease in November limited the taking of samples during the last 6 weeks of 1937 and also, in 1936, we had to cope with an institutional outbreak of Sonne dysentery at Southlands Hospital which accounted for several hundred specimens. Tests under the T.B. Order in 1937 were 52 fewer and those under the Milk and Dairies Act increased by 164 tests.

With regard to the mental hospital, there has been an increase of routine specimens most of all due to additional tests of new admissions for the enteric type of organism and also for the blood sedimentation rate.

The following is a summary for the last 3 years.

		1935.	1936.	1937.
Mental Hospital examinations	...	3,562	4,373	5,625
Public Health examinations	...	3,365	4,015	3,520

It will be noted that during 1935 and 1936 the mental hospital and public health examinations were approximately equal but that during 1937 the mental hospital claims the definite majority.

The examinations are detailed below :—

Hospital.—Urines : routine, 1,650; special (bacteriological fermentation tests, etc.), 670. Faeces : routine (bacteriological), 880; special (occult blood, etc.), 32. Bloods : Wassermann tests (M.R.C. No. 3 method), 280; complete counts, 18; partial, 57; sugar estimations, 16; urea, 44; Van den Bergh reactions, 1; agglutinations per organism, 1,457; sedimentation rates, 303. Sputa for t.b., etc., 52; sections for histology, 7; vaccines, 4; biological tests, 5; C.s.f., 9; pleural fluids, 5; other tests, 68. Post-mortems (62·6 per cent. of deaths), 67. *County Work.*—Tests under Tuberculosis Order, 1925 : biological, 126; microscopical, 138; anthrax, 7. Milk and Dairies (Consolidation) Act : biological, 355; microscopical, 220. Public Health Authorities : sputa for t.b., 671; swabs for diphtheria, 341; milks, 1,004; faeces, 43; bloods, 195; pleural fluids, 28; urines, 88; biological tests, 19; agglutinations per organism, 210; other tests, 75.



*Contagious Infectious Diseases.*

No cases of enteric, dysentery, or Salmonella (food-poisoning) have occurred during 1937. One female case of encephalitis which proved after death to be of the encephalitis lethargica (epidemic) type occurred with a fatal result due to encephalitis but fortunately the instance was an isolated one. This is not uncommon.

*Diphtheria and Scarlet Fever prevention.*

A series of children were tested for their Schick (diphtheria) and Dick (scarlet fever) reactions as to susceptibility. In view of the heavy proportion of positive results it was decided by Dr. Reid to have all children doubly immunized as a routine measure. Preventive injections were given in a series of 3 weekly doses to 25 boys and 16 girls by the pathologist and this was followed on for all newly admitted children by the Medical Officer in charge. The dose of diphtheria prophylactic (T.A.F. in this case) was 1 c.c. weekly by intramuscular injection. Into the opposite arm 0.2, 0.8 of weak (A toxin) and 0.1 c.c. of strong (D toxin) were given in successive weeks.

This procedure is the modern method of prevention or attenuation.

*Tests on newly admitted patients.*

In their last annual report the Board of Control make special reference in this connection to this and certain other mental hospitals.

For the benefit of other hospitals who may be interested in our systematic investigations the details are given below.

*Blood examinations.*—Wassermann and Kahn tests (with spinal fluid for full analysis where required, including Lange and Gum-mastic curves, cell count, globulin, total protein with Wassermann and Kahn reactions).

Blood sedimentation rate. Complete Widal reaction, including Brucella abortus.

*Excretal examinations.*—Faeces : bacteriological for enterica and the dysenteries.

Urine : chemical and microscopical analyses. Cultures if indicated.

*The Blood sedimentation rate.*—This test is favoured as a “sorting out” measure. When positive, it indicates some failure of resistance on the part of the organism. It is held that the reaction mirrors the struggle between the disease process and the resistance of the individual concerned. It is said to be invariably negative in the psycho-neuroses so that it is valuable from from the point of view of mental diagnosis.

<i>Results.</i>	<i>Period.</i>	Jan. 1st to Dec. 31st, 1937.	
Total number tested	...	...	305
Abnormal readings	...	...	85      24.74 per cent.

That is, roughly a quarter have some organic disturbance sufficient to affect the test. In the majority of cases (actually 75 per cent. of abnormal B.S.R. readings) organic disease was found but not in all.

*Research work.*

It will be readily understood that the increase in routine tests has left little time for research but further investigation into the damaging effect of cystitis on the kidney function has confirmed our previous findings to the effect that temporary lowering of renal capacity occurs during cystitis. In this connection we have been controlling the use of the new drug, sulphonamide (prontosil) by periodic bacteriological tests and this drug has been found to effect many dramatic, but not invariable, cures in this complaint. Cases of many years duration have been rapidly cured.



Reference has already been made to a case of encephalitis of the acute type. A detailed investigation of the brain, both macroscopical and histological, was made. Interesting specimens of this type are periodically shown to the Eastbourne Medical Society and are much appreciated. This assists the local profession to keep in touch with mental hospital investigations and research.

#### *Hygienic tests for the Hospital.*

In addition to the monthly tests of the milk-supply, and of the disinfecting tank and foul laundry, it is now a routine to test the water supply at various points in regard to its bacteriological content and purity.

#### *Laboratory accommodation.*

No action has been taken in regard to increasing the above pending a clearer idea of future requirements. The conditions are chiefly faulty in respect of space, lighting and hygiene. These all increase the risks of infection to those working under such conditions and even if a County Laboratory on a large scale is not in contemplation and if only the Mental Hospital work is to be considered, considerably more spacious quarters are really needed for modern requirements.

#### *A Case of Acute Encephalitis : (?) Epidemic Type.*

The patient was a female aged 41 who was originally admitted to the East Sussex Mental Hospital on January 29th, 1919, since when she had not been away from the institution and was suffering from epileptic insanity with increasing feeble-mindedness. She was in fair bodily health according to a note made in 1926.

The present illness commenced on October 15th, 1937, when, after a succession of nocturnal fits, she commenced a slight pyrexia (T. 101°).

It was noted on that date that she was making continual circular movements of the left arm and left leg which both showed some rigidity but their reflexes were unaltered. To exclude any uraemic possibility, a blood urea was done on October 23rd and was found to be normal (21.6 mgms. per cent.).

On October 26th she was still pyrexial and now the right arm showed slight, jerky movements. The left arm was now rigid and to a less extent the left leg. This rigidity passed off during sleep when the reflexes were found to be brisk and equal on both sides. The plantar responses were flexor and the pupils were equal. On October 29th, she was observed to talk more or less rationally but complained of headache.

On October 30th, she was conscious. The right plantar response was found to be extensor and the left great toe rigid, also the left foot and ankle. The knee jerks were brisk and equal. No abdominal reflexes were elicited. The pupils were still equal and reacted to light and accommodation.

Gyratory movements of arms were marked and more so on the left side. Spinal puncture was done. The first part of the fluid was clear and the second tinged with blood.

Next day, October 31st, the right pupil was found to be larger than the left, but both reacted.

On November 1st the cerebrospinal fluid gave negative findings throughout.

On November 2nd gingivitis with bleeding was reported. On November 4th, the gyratory movements were in abeyance all day. A vaginal swab showed epithelial cells, diphtheroid saprophytes and coliform bacilli. The B.S.R. was 45 mm. at 1 hour. The Widal reactions to *B. typhosus* "H." and "O.," the paratyphoids, *Salmonella* group and *Brucella* group were negative.

The leucocytes totalled 7,400 per c.mm. The C.S. fluid showed slight increase of pressure.



On November 6th it was reported that the patient had been moaning for several days and was agitated whenever she had to be moved. The left lung showed basal congestion and headache was again complained of. The headache was located to the occipital region.

On November 8th, the left chest was explored with negative results. A catheter specimen of urine was sterile on culture.

On November 12th she had a fit lasting several minutes with jerky movements back and to the left of the head, limbs and body to a position of opisthotonus with twitching of the eyelids.

The faeces were negative for pathogens.

November 13th, right basal pneumonia set in and on the 15th she died with signs of circulatory failure with oedema of the legs.

The duration of the illness was 30 days.

#### *Post-mortem.*

*The Brain. Macroscopical abnormalities.*—There was much haemorrhagic infiltration most marked in the sulci with oedema. There was slight frontal wasting. The inferior surface of the temporal lobes showed some roughening. The general vascular congestion was very striking, the capillaries were engorged, oozing blood on section.

The following showed diffuse, yellow, necrotic areas:—The basal ganglia on both sides, the right occipital lobe, the parietal cortex on the left side; the lenticular nucleus was involved as to all its constituents, the putamen, globus pallidus and amygdaloid areas.

The lesions were definitely necrotic.

*Histo-pathology.*—Microscopical sections from the various areas gave a common picture. The outstanding features were as follows:—

- (1) Gross necrosis and diffuse loss of staining properties with haematoxylin (areas of infarction).
- (2) Marked capillary proliferation and engorgement. New capillaries were abundant in the necrotic areas showing an attempt at re-vascularization.
- (3) Very little perivascular infiltration except in certain localized foci where it was pronounced.
- (4) Localized gliosis, well shown by Victoria Blue staining.

#### *Comments.*

This is unquestionably a case of acute encephalitis and the lesions indicate a severe cerebral toxæmia. The site of the lesions and their microscopical characters closely resemble encephalitis of the epidemic type but the case was actually a sporadic one. This is by no means unknown. It is rather extraordinary that it should occur in an inmate of so many years' standing, but one has known sporadic cases of enteric fever occur in similar manner. It is very fortunate that there was no spread of the disease. It is incumbent on those who doubt this view to offer alternative and satisfying explanations of the cause of acute encephalitis. The gyratory movements are characteristic of lesions of the basal ganglia, but the cortical lesions were not altogether expected at the post-mortem.

Death appeared to occur from an intercurrent pneumonia.

#### XLV.—FROM THE WARWICKSHIRE AND COVENTRY MENTAL HOSPITAL.

*General Report.*—By Dr. D. N. PARFITT, D.P.M., Medical Superintendent.

*Insulin and Cardiazol.*—About 50 patients have been treated by insulin hypoglycaemia and 12 with cardiazol injections. The results are promising and treatment will continue.



*Prolonged Narcosis.*—A comparison of results obtained in 50 cases with medinal-luminal narcosis with results using somnifaine was made, and is being submitted for publication elsewhere.

*Herpes Zoster and Chicken-Pox.*—A case of Herpes Zoster was diagnosed on November 7th and 2 cases of chicken pox appeared on November 24th in the same ward. There were no further cases and no unusual complications.

*Prognosis in General Paralysis.*—An investigation into the after history of 24 successive syphilitic psychoses treated in 1931 and 1932 illustrates the fact that diagnosis of these conditions often leaves much to be desired, for of these 24 patients 10 died within 3 months of admission to hospital. It is not an exaggeration to say that most of these early deaths were due to late diagnoses. Of the remaining 14, 8 have been discharged and have not returned, 4 are chronic patients, and 2 have died. The importance of more frequent examinations of blood and spinal fluid is plain, and it is to be hoped that the great increase in out-patient psychiatric clinics will help to diminish the proportion of late cases.

*Intensive Bromide Therapy.*—A trial of large doses of bromide for chronic regressing patients showed that in something less than 50 per cent. the progress of the regression is apparently stayed, but that the treatment is more dangerous than has been supposed and needs very careful supervision. The blood bromide was forced up to 400 mg. per cent. in 20 patients but 3 patients collapsed suddenly and were desperately ill, and 1 developed broncho-pneumonia and died.

*Alcoholic Depression.*—On the basis of 5 cases of alcoholic depression observed, an attempt was made to differentiate the clinical picture from that of melancholia. The depression, paucity of ideas in the acute stages, age incidence, and tendency to recurrence were the same in both groups, the physical changes common to chronic alcoholism were not prominent in any case. The commonest early symptoms in the alcoholic cases were irritability, sullen, angry periods sometimes progressing to violence, and occasionally vague bodily pains. These contrasted with the head pains, sleeplessness, feelings of inadequacy and physical apathy of melancholias. Constipation was more common and severe in ordinary melancholia, motor retardation was less marked in the alcoholics. The depressed alcoholic's delusions were chiefly of suspicion and persecution, whereas in melancholia delusions of sin and somatic delusions are much more prominent. Recovery was more rapid in alcoholics, preceded by a return of appetite which appeared much sooner than in melancholia. In general, alcoholics were less suicidal but more inclined to violence, it being noteworthy that violence rarely developed in hospital but was prominent in the history. Insane heredity was less frequent in the alcoholics, but a history of alcoholism was naturally much commoner.

*Laboratory Work.*—The following is a summary of the work done in the laboratory during the year:—

Blood: urea, 298; bromide, 554; calcium, 25; culture, 5; sugar, 144; Wassermann reaction, 460; Meinicke, 164; typeing, 6; Widal, 3. Blood counts: red cells, 424; white cells, 166; haemoglobin, 333; colour index, 47; differential, 80. C.S.F.: Wassermann reaction, 147; Kahn, 112; Meinicke, 30; colloidal gold, 157; cell count, 10; sugar, 5; globulin, 112. Urine: specific gravity, 2,480; albumen, 2,480; sugar, 2,480; acetone, 2,480; microscopic, 1,447; culture, 47; urea, 4; T.B., 6; P.H., 115. Throat swabs, 25; sputum for T.B., 50; test meals, 29; fasting juice cultures, 29; pathological sections, 15; museum specimens, 4; cervical swabs culture, 17; vaccines, 4; pus cultures various, 21; antral lavage cultures, 46; miscellaneous, 10; soap analysis: per cent. of water, 22; per cent. of fat and resin, 22. Soap powders: per cent. of soap, 19; Water analysis, 1; sewage effluent analysis, 2. Post Mortems, 66 (56 per cent. of deaths).

*The Uses of Evipan Sodium.*—By Dr. S. W. GILLMAN.

The use of evipan sodium has steadily increased here during the last year. In treatment it has been used for:—

(a) Recurrent attacks of acute mania with excitement, 4 cases, 10 c.c. being given intramuscularly each morning at 9 a.m. For the first few



nights a subsidiary dose of paraldehyde was used but it was found that this could soon be discontinued. The duration of the excitement was shorter than in any previous attacks.

(b) Isolated instances of sudden excitement and noisiness. On the whole its usefulness has seemed greater than that of morphia and hyoscine, being more certain, non-habit forming and not giving rise to tolerance. Sleep invariably followed the intramuscular injection of 10 c.c. within 30 minutes.

(c) Alcoholic delirium in acute psychoses : 2 cases. Rapid improvement followed the production of anaesthesia by intravenous evipan, only 1 dose being given in each case.

(d) A female patient who had a delusion that she never slept. Intravenous evipan abolished this delusion but she developed others very rapidly.

Other uses of this drug have included :—

(i) For the physical examination of very resistive patients. Sometimes a satisfactory history could be obtained following intramuscular evipan and before sleep occurred.

(ii) For tube feeding violent and resistive patients. Gastric juice is withdrawn and tested with litmus paper before feeding. The feed should be given slowly, otherwise vomiting occasionally occurs. The injection is given intramuscularly.

(iii) Intravenous evipan has been used over 100 times here to produce anaesthesia for minor operations, dental extractions and lumbar punctures. It has also been used before inhalation anaesthesia.

(iv) For the removal of a struggling patient from one building to another.

Although evipan has been used in over 200 patients only 1 dangerous complication developed. A severely ill general paralytic with a low blood pressure collapsed following intravenous anaesthesia and appeared dead, when 10 minims of 1/1000 adrenalin was injected into the heart. She recovered. Care should be exercised in the presence of low blood pressure or of liver or kidney disease.

One patient developed an abscess in the buttock and this illustrates the necessity for strict asepsis.

Two patients seemed unaffected by intravenous injection of 10 c.c. Curiously enough both slept following an intramuscular injection on another day. Qualitative tests for barbiturates showed that the urine of patients was usually clear in 7 hours.

#### *Tonsillectomy in Psychoses.* By Dr. S. W. GILLMAN.

Forty-one patients had tonsillectomy performed in this hospital during the 5 years 1932–1936 inclusive.

There were 18 patients in a manic-depressive group, mainly cases of melancholia, and 9 of these were discharged and have not returned. The other 9 are all chronically insane. In no case could improvement be definitely related to the operation, the clinical course seeming unaltered.

There were 22 schizophrenics. Eleven were discharged and have not returned, the remainder have steadily demented.

One puerperal excitement was discharged recovered.

The discharge rate among the schizophrenics is interesting. No relation between the operation and clinical improvement could be demonstrated and some only improved several months after, but a discharge rate of 50 per cent. is unusual. One is rather reminded in this connection of the difficulty in diagnosis of recent cases of schizophrenia and the danger of making generalizations on small groups of patients.



*Results of Benzedrine Therapy.*—By Dr. S. W. GILLMAN.

Benzedrine (B. phenyliso propylamine sulphate) has been tried in several types of psychoses. As a rule 30 mg. of Benzedrine was given at 9 a.m. with the patient in bed, and the blood pressure was taken every 10 minutes until the pressure returned to normal. This was repeated for an average of 30 days.

Several normals have taken the drug and reported their experiences to me. Most agree that a wide-awake feeling followed, and one colleague takes the drug to offset drowsiness on long car drives. Increase in energy, irritability, facial flushes, feelings of anxiety, garrulity, headache and nausea have all occurred.

*Schizophrenia with apathy.*—Ten chronic cases who might be included under the above heading were treated. There was no case of marked improvement and only 1 patient commenced useful ward work. Four of them became restless and excitable during treatment and facial flushing sometimes developed. Sleep was never disturbed.

*Paraphrenia.*—Two paraphrenics of a quiet, retiring disposition became garrulous and expressed delusions freely under treatment. No mental improvement followed.

*Melancholia.*—Five cases were treated. In 3 distinct improvement was noted. Two of these patients had asthma and this was completely relieved during treatment and has not recurred.

*Mental Defect.*—One case was treated without benefit and without change in the intelligence quotient.

*Usefulness of the Meinicke Reaction in the Investigation of a case of Juvenile Tabo-paresis.*—By Dr. S. A. MacKEITH, D.P.M., Deputy Medical Superintendent.

M.C., aged 20, was admitted to this hospital on August 8th, 1936. She was emaciated and unable to stand, and had a profuse gonococcal vaginal discharge.

She displayed signs of juvenile tabo-paresis, e.g. bilateral optic atrophy, unequal pupils showing the Argyle-Robertson phenomenon, slurred speech, sluggish knee-jerks, absent ankle-jerks, frequent epileptiform fits. Mental examination showed her to be confused, dull, apathetic, and somewhat demented. Her illness had commenced with unsteadiness of gait when she was between 15 and 16 years old. Her development in childhood and school record were normal. It was clear that she belonged to the "Group A" described by Tennent on page 784, *Proc. Roy. Soc. Med.*, Vol. XXIX, No. 7, May, 1936.

After treatment of her gonorrhoea, she was successfully infected with benign tertian malaria, followed by courses of N.A.B., S.A.B., and intramuscular bismuth. Subsequently, she was treated with quartan malaria. She made striking progress for so advanced a case. She put on weight, walked well, and looked well. Her dementia was arrested, and she lost all her confusion and apathy. She did simple household work willingly. Her fits continued, but under regular luminal diminished greatly in frequency. She was discharged on July 26th, 1937.

To determine whether or not she was a congenital case, her father and mother were interviewed and examined.

The mother, aged 41, was obese but in good general health. A careful physical examination revealed no signs of syphilis, and she denied having ever had the disease. She had had two abdominal operations, one on the uterus and the other for a "floating kidney." Her blood W.R. and C.S.F. W.R. were found to be negative, and her Lange normal.

The father also denied having ever had syphilis. He was thin, and had had two operations for gastric ulcer. He complained of hyperaesthesia of the soles



of his feet, and of "spasms" of his feet in bed at night with "a burning pain in the legs." His ankle-jerks were rather sluggish, but there were no other neurological signs. His blood W.R. and C.S.F. W.R. were negative, and his Lange normal.

In view of these negative laboratory results with the parents, blood-group tests were performed on them and on the patient, in case they should serve to exclude Mr. C. as the father; but all three were found to belong to Group AB.

It seemed to be impossible definitely to determine whether M.C. was a congenital or an acquired case. Some support was afforded to the latter view by the fact that, when admitted, she was suffering from gonorrhoea also. Moreover, she was known to have been sexually precocious and promiscuous.

In May, 1937, Dr. S. A. Mann, of the Central Pathological Laboratory of the London County Mental Hospitals, kindly taught us the Meinicke test for syphilis, which is now employed as a routine here.

When it was applied to the parents of M.C., the result in the father was "++" and in the mother "+."

#### *Out-Patient Centres.*

Out-patient work has developed greatly during the year. At the beginning of 1936, there was 1 session per month at each of the 4 centres, making a total of 4 sessions per month. By the end of 1937, 20 sessions were being held per month.

The total number of attendances in 1936 was 157. In 1937 there were over 900 attendances.

At the General Hospital, Birmingham, sessions are held by this hospital on the first, third, and fifth Tuesdays of each month. Barnsley Hall Mental Hospital (Worcestershire) holds sessions there on the second and fourth Tuesdays. The General Hospital is thus provided with psychiatric out-patient treatment every Tuesday.

At the Hospital of St. Cross, Rugby, a session is held once a week. The same applies to the Warneford Hospital, Leamington Spa.

Greatly increased attendances have necessitated the holding of 2 sessions a week at Coventry and Warwickshire Hospital, Coventry. One of these is for psychotherapy only. The other is devoted to new cases. The duration of each session is 4 hours or more.

The sessions are conducted by the Medical Superintendent, with the assistance of the Deputy Medical Superintendent and the Senior Assistant Medical Officer.

#### *Publications.*

"The Neurological and Psychological Effects of Hypoglycaemia," by D. N. PARFITT. *Proc. Roy. Soc. Med.*, 1937, xxxi, 11.

"Insulin Sensitivity and Sensitisation," by S. W. GILLMAN and D. N. PARFITT. *Lancet*, 1937, ii, 743.

"Loneliness and the Paranoid Syndrome." An evaluation of the role of loneliness in the pathogenesis of certain presenile paranoid syndromes was made. D. N. PARFITT, *Journ. of Neurol. Psychopathol.* 1937, xvii, 318.

#### XLVI.—FROM THE ISLE OF WIGHT COUNTY MENTAL HOSPITAL.

*Report of Research Work.*—Communicated by Dr. C. Davies-Jones, Medical Superintendent.

*Laboratory Work.*—The following is a summary of the work carried out in the hospital laboratory.

Urine (additional to simple routine examinations carried out in wards), 348; blood counts, 17; blood cultures, 5; Widal's, 6; C.s.f. gold-sols, 17; globulins, 7; cell counts, 7; bacteriological work: faeces, 86; urine, 98; pus, 4; throat swabs, 1; sputa, 25; stools for ova, 4; farm: milk 16; cultures from 8 cows; histology: brain, 3; thyroid gland, 1; pituitary, 1; kidney, 1; intestine, 2; stomach, 2; suprarenal, 1.



*Observations on Out-Patient Treatment of Mental Illness.*

During the past year the following figures summarize the work of the 4 centres of the Mental Welfare Clinic on the island :—

	Cowes.	Newport.	Ryde.	Whitecroft.	Total.
Number of patients dealt with	42	70	78	13	203
„ new patients ...	39	52	62	11	154
„ attendances ...	170	252	297	29	748
„ sessions ...	51	52	50	28	181
Number receiving mental after-care on discharge from the mental hospital ...	6	15	13	1	35
Number referred as being “Suicidal” ...	3	1	4	1	9
Number found to be : epileptics	1	4	7	—	12
„ „ mental defectives	2	10	8	—	20
Number admitted to the Mental Hospital as :—					
Voluntary patients ...	...	...	...	22	
Temporary patients ...	...	...	...	2	
Certified patients ...	...	...	...	7	
				—	
				31	
				—	

With regard to the ages of patients attending, these varied from 7 months to 79 years. The number of children attending aged up to 16 years was 43 of which 9 were found to be mentally defective. Six who attended were on probation from the Juvenile Courts. One child was referred as suffering from hysterical fixation of the jaw accompanied with marked anxiety. As suspicions were aroused arrangements were made for the child to be admitted to Whitecroft on a voluntary basis and it was discovered that the condition was due to tetanus. Immediate treatment was commenced pending arrangements for the child's admission to the County Hospital and in due course complete recovery resulted.

Several cases of typical “problem” children were also dealt with, including bed wetting, night terrors, truancy, etc. Since the inception of the clinic in 1932 the number of children attending has steadily increased and continues to do so as the scope of the clinic becomes more widely known. It is becoming a frequent practice to be called into consultation in cases of delinquency dealt with by the Juvenile Courts as well as to be asked for advice by parents, guardians, and teachers in regard to the conduct of children. This is all to the good as hitherto no system has existed here for making psychological treatment available for young children and adolescents. At the same time this has interfered considerably with the working of the clinic in regard to adult cases, for whose benefit it was originally intended. Investigation of the children requires, if anything, much more detailed work and time and I have long felt that it would be a proper thing to encourage the formation of a definite organization for child guidance. Matters have at last reached such a point that definite steps for the formation of a Child Guidance Clinic have been sanctioned by both the Mental Hospital Committee and the Mental Deficiency Committee. The Education Committee has also expressed its appreciation of the efforts which have been made and at an early date it is hoped that this clinic will be an established fact. I have felt that it would be wiser to use as a centre some room not connected (at least obviously) with the County Council's Offices and it has been possible to arrange for the use of the Occupation Centre established in Newport under the auspices of the Mental Deficiency Committee. This centre consists of a large annexe to a hall situated in the town which is used for numerous other purposes. Its use will, I think, help parents to feel that in bringing their children a friendly and “unofficial” attitude will be adopted. The new clinic will, of course, be entirely experimental and it is proposed to make a further report as to its progress etc., in a year's time. It will be started in a very small way and I trust that its



activities and organization will be increased as the demand warrants. Each child will be carefully examined by myself and my colleagues and we shall have the assistance of a lady who has voluntarily undertaken the sociological side of the work together with the teacher who supervises the work done at the Occupation Centre (as her class will of course not meet when the clinic is in session). It is my hope that it will thus be possible to compile as completely as possible a history sheet for each child and a copy of this will be sent to the Director of Education for the County for his files so that he may, if he sees fit, adopt any recommendations which are made. Particular attention will be paid to the subject of juvenile delinquency and I cannot help feeling that the existence of previous records, which will become available should the child be brought before the Juvenile Courts, will be helpful.

As will be seen, the number of adult patients dealt with by the Mental Welfare Clinic has continued to increase. I have never felt it a wise thing to claim that any organized system of out-patient treatment of early mental illness should necessarily lower the number of admissions to the mental hospital. If I had made such a claim, past experience here would show it to have been a fallacious one. The whole point and aim of out-patient treatment should be to get the cases early enough and if this is so, one should not hesitate to recommend admission to the mental hospital on a voluntary or even other basis if it is found that out-patient treatment alone would not be likely to afford full benefit.

#### *The Treatment of Insomnia.*

It does not necessarily follow that because the means is a simple one it should be considered unworthy of mention as a help in the treatment of insomnia. I feel that this is the proper place to mention a step taken in this direction by my committee, namely the adoption of spring-filled mattresses in lieu of hair or fibre filled ones for patients' beds. Recently the Admission Hospital beds (male and female) have been equipped with such mattresses and an improvement in the sleep of newly admitted patients has been remarkable as has naturally been the diminished use of sedatives. These mattresses cost considerably more than the fibre or hair filled varieties but are much lighter for nurses to deal with, thoroughly and easily sterilizable, and can be easily and inexpensively repadded when necessary. The installation is at present only experimental and it is the committee's intention if it proves successful to increase the number of such mattresses so that convalescent patients may use them. I am of the opinion also that it would be possible to diminish the use of the more expensive air mattresses for bed-ridden types. I do not imagine that it is likely to be possible to replace all mattresses by the new pattern, but I certainly feel that the success which has attended their introduction will allow much scope.

#### XLVII.—FROM THE WILTSHIRE COUNTY MENTAL HOSPITAL.

*Laboratory Report.*—By Dr. J. W. LEECH, D.P.M., Medical Superintendent.  
*Routine Examinations.*

Faeces : bacteriological, 247. Urine : chemical, 140; bacteriological, 4; sugar (quantitative), 5. Sputa, T.B., 10. Blood : cell counts, 14; sugar, 9. Agglutinations, 14. Milk bacteriological, 4. Sewage, 6.

#### *Dysentery.*

During the year 16 cases of dysentery occurred.

Four cases, each in a different ward and at different times during the first half of the year, made their appearance on the female side. The wards concerned were placed in quarantine and contacts received prophylactic doses of dysentery vaccine. One "carrier" was discovered as a result of the bacteriological investigations. The diagnosis was confirmed by the isolation of a dysentery bacillus from each case.

An outbreak, presenting all the signs of clinical dysentery, 10 cases in all, with 5 deaths, occurred during September on the male side. Those patients



who died were already very debilitated before the disease was contracted. In spite of exhaustive bacteriological investigations, both ante-mortem and post-mortem, only an atypical dysentery bacillus was isolated from 1 case. The other cases showed many "late lactose fermenters." Quarantine and prophylactic vaccination were adopted as on the female side, but the epidemic ceased when a very "dirty" patient was transferred to the dysentery isolation ward. This man repeatedly gave negative bacteriological results.

At the end of the year 2 cases occurred in F.7 ward. From both of these patients dysentery bacilli were isolated, and subsequently a "carrier" was discovered in the ward. The bacilli isolated in these outbreaks have belonged to the Flexner "W" strain.

The media used in the bacteriological examinations are now made in the laboratory instead of being supplied from an outside laboratory. This entails much more work, but it has been found to possess very decided advantages.

#### *X-ray.*

A portable "Sunic Junior" X-ray apparatus was obtained in August. It has rendered great assistance in the diagnosis and treatment of fractures. The apparatus has also been used as an aid to the diagnosis of chest conditions, and, with increased experience in technique, promises to be of great value in this direction.

### XLVIII.—FROM THE NORTH RIDING MENTAL HOSPITAL, YORK.

*General Report.*—Communicated by Dr. J. I. RUSSELL, F.R.F.P.S., D.P.M., Medical Superintendent.

#### *Typhoid Carriers.*

During the year a female patient was found to be a typhoid carrier. So far as was known she had not suffered from enteric fever. From January to June, *B. typhosus* was isolated on 35 occasions (41 examinations) from her faeces.

The presence of gall stones having been diagnosed, cholecystectomy was performed on June 28th, 1937, and *B. typhosus* was isolated from the bile, gall bladder, and gall stone.

Since the operation the faeces have been examined on 52 occasions, with negative results.

Five patients who had been persistent typhoid carriers were treated by cholecystectomy between 1927 and 1930. Weekly examinations, aggregating 1813, of the faeces of these cases have been made regularly since the date of operation, and all have remained negative.

In 1934, 2 patients were found to be typhoid carriers, but were not considered suitable for operation. Neither was known to have suffered from enteric fever. Both continue to excrete *B. typhosus* intermittently, and in the case of 1 of them, 80 of the 94 specimens examined during 1937 were positive.

We suggest that with so effective a remedy as cholecystectomy available, the prolonged isolation of typhoid carriers is harsh and unjust.

#### *Diphtheria.*

During the year Nurse W. contracted diphtheria, and 3 months later was discharged from the District Fever Hospital after 3 negative throat swabs. After her return to duty, 2 further cases occurred and K.L.B. were found to be present again on the throat of Nurse W., but a virulence test was negative.

During a period of 9 months this nurse has been examined regularly, and twice has remained apparently free for 3 weeks, but despite treatment by a throat and nose specialist, practically all other swabs have been positive.

This seems to cast doubt upon the prevalent view that 3 consecutive negative swabs indicate a cure.



*Shock Treatment of Schizophrenia.*

Three male patients are being treated with insulin and 2 female patients with cardiazol.

*Summary of Laboratory Investigations.*

Bacteriological examinations : Faeces for typhoid and dysentery groups, 1,710; scrapings—gall bladder, 53; bowel and appendix, 104; gall stones, 10; bile, 53; swabs, 346; sputa, exudates and urine, 42. Stomach contents, 8. Occult blood, 4. Blood : Widal reactions, 362; Meinicke M.R., 185; counts and films, 46; sugar estimations, 29; cultures, 20; sedimentation rate, 9; urea estimations, 15. C.S.F. : Meinicke M.R., 81. Museum specimens, 8.

## XLIX.—FROM THE BRISTOL CITY MENTAL HOSPITAL.

*Pathological Report.*—By Dr. J. J. B. MARTIN, F.R.C.P., D.P.M., Medical Superintendent.

*Pathological and Biochemical.*

During the year 2,173 examinations were made, a figure almost identical with that of the previous year.

*Summary of Examinations.*

Urines : routine, for abnormal cellular and chemical constituents, 1,436; special examinations, 129; blood, total and differential counts, 75; malarial films, 6; cultures, 2; chemical, 45; Widal reaction, 8; sputa, 34; bacteriological examinations, 39; Wassermann reactions, 297; C.s.f. examination, complete, i.e. cell count, protein and chloride estimations, Lange curve and Wassermann reaction, 18; faeces, bacteriology, 28; histology, 20. Post-mortem examinations, 36 (42·8 per cent. of all deaths).

*Clinical.*1. *Dysentery Prophylaxis.*

The prophylactic inoculation of anti-dysentery vaccine, prepared in the laboratory, has been continued during the year, and 282 new admissions have received the inoculations. Once more it is gratifying to report that no case of dysentery has been notified in the hospital during 1937. There were 15 cases of diarrhoea requiring investigation, but of these only 4 were severe, and in no case was *B. dysenteriae* isolated on repeated examination of the stools. In 1 case an abnormal coliform organism having suspicious fermentation reactions failed to give the agglutination reactions of the dysentery group, nor were the corresponding agglutinins present in the patient's serum. In all other cases the examinations were frankly negative.

2. *Syphilis in New Admissions.*

During the year the routine examination of 274 new admissions has shown a positive Wassermann reaction in 18 cases, distributed between the sexes as follows :—

*Males*, 135 : positive Wassermann reaction 12, or 8·9 per cent.

*Females*, 139 : positive Wassermann reaction, 6, or 3·4 per cent.

Eight of the males were suffering from G.P.I., and showed typical changes in the cerebrospinal fluid, but none of the females were clinically general paretics and the Wassermann reaction of the spinal fluid was negative in each case. 3·6 per cent. of admissions were found to be suffering from forms of syphilis other than G.P.I., a figure not sensibly greater than that found in general hospitals.

It is a belief in many quarters that the Wassermann reaction is not so sensitive as other tests in the sero-diagnosis of syphilis, and it has been thought advisable to introduce the Meinicke reaction as an additional routine test. No comparative figures are yet available, but it will be instructive in future examinations to note the results obtained by the 2 reactions on identical series of blood sera.



3 (a) *Sulphanilamide*.—By Dr. R. E. HEMPHILL, D.P.M.

Various proprietary preparations of this drug have been used throughout the year, proteptasine proving the one most free from unpleasant sequelae. The results of treatment with this drug have been as follows :—

(i) *Streptococcal Tonsillitis*.—In a large number of cases improvement was progressive and rapid, a much better result than with previous forms of treatment. In one case a long-chained haemolytic streptococcus disappeared from the throat after 24 hours. In another, the organism remained in spite of treatment, but the Gram-Staining reaction was altered.

(ii) *Influenzal Broncho-pneumonia*.—One case was treated with proteptasine. In spite of a high temperature and marked signs in one lung, the temperature was normal in 5 days and convalescence later uneventful.

(iii) Five cases of streptococcal cellulitis gave favourable results.

(iv) *Puerperal Insanity*.—Of five cases in which there was an irregular pyrexia with marked toxæmia, improvement in 3 followed at once on treatment with prontosil, the temperature became normal and the mental state showed a corresponding improvement; this was too dramatic to be attributed solely to general treatment.

*Unpleasant Sequelae*.—Some patients complained of anorexia and depression as the result of taking sulphanilamide; in 2 cases there was actual vomiting. A mild degree of sulphaemoglobinaemia occurred in one case. This was associated with dyspnoea, cyanosis and cardiac irregularity.

It seems worthy of note that the use of mixtures containing sulphates should be stopped if sulphanilamide is being administered. Sulphaemoglobinaemia may occur in a patient who receives epsom salts and the ordinary hospital "house mixture."

(b) *Seconal*.

This light barbiturate was tried as a sedative in 28 cases of various types of mental disorder. It did not appear suitable for continuous use in troublesome patients. However, it was noticed that a marked degree of euphoria often occurred on wakening. It was therefore tried in 5 cases as a means of producing a semi-continuous narcosis. Anxiety was a prominent feature in each case. It was found that 12 grains in the 24 hours ensured almost continuous sleep. Patients could be roused readily a few hours after receiving a dose. On awakening they were in a suggestible state; a degree of analysis and subject synthesis could be made; the euphoria assisted materially. Two cases recovered, 1 improved markedly, the other 2 showed some improvement. Treatment was carried on from 10 to 14 days. No ketonuria, no unpleasant sequelae, were observed at any time.

(c) *Recovery in a case of dementia praecox following one spontaneous fit*.—The following case, which will be reported more fully elsewhere, appears to be of especial interest in view of the present treatment of dementia praecox with cardiazol. A woman aged 27, admitted in June, 1937, in a state of confusion, soon showed characteristic symptoms of dementia praecox. She became irresponsible, mischievous, destructive and violent. In November, 1937, she had 1 typical epileptic fit followed by a short period of irritability and confusion. From that time she made steady progress and was discharged recovered 6 weeks later. Her husband and relatives were specially struck by the dramatic change in her mental state following the fit. It has been ascertained with certainty that at no time previously in the patient's life had she ever had a fit or any mental disturbance suggestive of epilepsy. There is no hereditary history.



4. *Benzedrine*.—By Dr. R. E. HEMPHILL, D.P.M., and Dr. R. GIBSON.

This drug has been tried extensively. Results on the whole were inconclusive but in the cases some facts emerged.

(i) *Post-encephalitis*.—Two cases were unaltered; one with a degree of oculo-gyral spasm showed improvement with reduction of rigidity; one case became markedly worse, excitable and maniacal.

(ii) *Stupor*.—Four cases showed no response.

(iii) *Dementia praecox*.—Four cases treated showed less apathy and commenced work voluntarily. A regression was noticed in each case on withdrawal of the drug.

(iv) *Depressive State*.—Three cases of mild depression seemed to benefit considerably. The drug was chiefly administered in 5 m.grms. dose at 8 a.m. and 1 p.m. Up to 30 m.grms. in the day were used without ill effect.

L.—FROM THE CITY OF CANTERBURY MENTAL HOSPITAL.

*Laboratory Report*.—Communicated by the Medical Superintendent.

The following is a summary of the routine examinations carried out during the year :—

Urine: general and chemical examinations, 217; bacteriology, 10; concentration test, 1. Blood: Wassermann reactions, 67; Widal reactions, 46; counts, 20; haemoglobin estimations, 13. Bacteriological: pus, 1; sputum, 4. C.S.F.: cytology, Lange curve, W.R., 5. Post-mortem examinations 17 (77·3 per cent. of deaths).

LI.—FROM THE DERBY BOROUGH MENTAL HOSPITAL.

*Report of Pathological and Clinical Investigations*.—By Dr. JOHN BAIN, Medical Superintendent, and Dr. W. J. BARBOUR, D.P.M., Pathologist.

A.—*Pathological and Biochemical*.

During the year 1937, 1,059 examinations were made, as follows :—

Urines: routine, 226; special, including bacteriological and urea concentration tests, 87. Faeces: bacteriological, 36; special reactions, 15. Blood: total counts, 45; differential, 15; sugar estimations, 18; urea estimations, 10; non-protein nitrogen, 5; creatinine, 5; Van den Bergh, 2; agglutinations, 29. Blood sera for Kahn reaction, 124. C.s.f.: complete examination, 41; cell count, 41; protein content, 31; globulin tests, 41; gold curve, 41; Kahn tests, 41; chloride estimations, 10. Bacteriological swabs and cultures, 41; sputum examinations, 30; gastric contents, 13; skin, water, milk, 15. Organs cut and stained, 149. Organs permanently mounted for museum, 4. Post-mortem examinations, 31 (88 per cent. of deaths).

B.—*Clinical*.

1. *Syphilis in relation to mental disease*.—Investigation of the incidence of syphilis was continued, the blood being examined by the Kahn test and the cerebrospinal fluid tested by at least the 4 classical tests, viz. Kahn, cell count, gold curve and globulin estimation.

The results are as follows :—

Of 88 female admissions examined, 14 gave a positive blood Kahn (total admissions, 91).

Of 36 male admissions examined, 8 gave a positive blood Kahn (total admissions, 53).



Table of female cases :—

Initials.	Admitted.	Age.	Blood.	C.s.f.	Diagnosis.	Result.
K.B. ...	22/1/37	23	+	—	Recent mania	Improved.
A.A.R. ...	5/3/37	7	+	—	Idiocy	Died 16/12/37.
E.L. ...	3/3/37	24	+	±	Stupor	Discharged 6/12/37.
R.H. ...	18/11/37	36	+		Recurrent melancholia.	Discharged 27/11/37.
A.G. ...	17/4/37	77	±		Senile dementia	Still here.
S.E.S. ...	17/4/37	65	+	—	Senile dementia	Still here.
F.H.C. ...	6/5/37	30	+		Hysteria	Left Oct. 30/37.
E.B. ...	26/11/37	31	±	—	Delusional insanity.	Still here.
A.T. ...	2/7/37	36	+		Delusional insanity.	Discharged 19/12/37.
D.D. ...	19/6/37	21	+	+ Luetic	Insanity with epilepsy.	Died 10/9/37.
D.C. ...	8/10/37	38	+		Confusional insanity.	Discharged Oct. 16/37.
E.E.G. ...	22/11/37	38	+	+	G.P.I.	Still here.
J.C.B. ...	11/12/37	57	+	+ Paretic	G.P.I.	Still here.
F. M. B.	11/3/37	43	+	±	Delusional insanity.	Still here.

Table of male cases :—

Initials	Admitted	Age	Blood	C.s.f.	Diagnosis	Result
G.P.A.	11/12/37	32	+		Confusional insanity.	Died 13/12/37.
W.J.L.	17/5/37	49	+	+	G.P.I.	Discharged 18/9/37.
J.T.	9/1/37	68	+	—	Senile dementia.	Died 19/1/37.
E.C.	29/12/37	45	+	+	G.P.I.	Still here.
W.M.	19/8/37	73	+	+	Senile dementia.	Still here.
C.M.M.	5/8/37	29	+	—	Recent melancholia.	Still here.
W.M.	9/2/37	46	+	+	G.P.I.	Died 15/2/37.
F.R.H.	26/7/37	49	+	+	G.P.I.	Died 11/10/37.

## LII.—FROM THE LEICESTER CITY MENTAL HOSPITAL.

*Laboratory Report.*—By Dr. T. WISHART DAVIDSON, D.P.M., Medical Superintendent, and Dr. E. S. STERN, D.P.M., Deputy Medical Superintendent and Pathologist.

*Routine laboratory investigations* during the year were as follows :—

Bacteriological examination of faeces, 140; culture of blood, urine, pus and exudates, 102; examination of sputum for T.B., 83; faeces and urine for T.B., 76; Blood counts, 153; benzidine tests, urea estimations, Van den Bergh reactions, blood sugar tolerance tests, test meals, sedimentation tests, blood analyses, etc., 176; Widal tests, 12; c.s.f. examinations, 28; malaria blood films, 107; Wassermann reaction of blood, 161; c.s.f., 28; Vernes test of blood, 161; Meinicke test of blood, 161; urine examinations, 860; bacteriological examination of pus and exudates, 33; post-mortem examinations 64 (97 per cent. of deaths).

*Wassermann reactions.* (M.R.C. No. 1. Wyler modifications).—Of the 195 direct admissions blood from 124 was examined : the remainder were not tested as they were either readmissions and known negatives or died or were discharged shortly after admission. Of the 73 females examined, 3 (4·1 per cent.) gave a positive reaction; and of the 51 males 3 (5·9 per cent.) were positive.

The incidence rate for syphilis in the 124 admissions tested was 4·8 per cent. General paralysis was diagnosed in 7 patients, 1 female and 6 males.

*Syphilimetric Method of Vernes.*—During the year 124 admission cases were tested by the Vernes method, and the results compared with the Wassermann reaction. There was complete agreement in 114 (91·9 per cent.).



*Meinicke Test.*—This test was also carried out on the 124 admissions and there was agreement with the Wassermann in 120 (96·8 per cent.).

*Malarial Treatment of General Paralysis.*—Of the 7 paralytics admitted, only 2 were treated during the year, 1 failed to improve and died later, and the other made such improvement that she is likely to be discharged in the near future.

Since malaria treatment was commenced in 1924, 119 patients have been treated and the results to the end of 1937 are as follows :—

Discharged	...	...	...	...	...	...	33	27·7 per cent.
Improved	...	...	...	...	...	...	4	3·3 per cent.
Unimproved (including 4 who were discharged, but relapsed and were readmitted)							21	17·6 per cent.
Died	...	...	...	...	...	...	61	51·2 per cent.

Of those who died, 6 were patients who had been discharged, but relapsed and were readmitted. In 11 instances death was associated with the malarial treatment.

*A Case of Acute Encephalitis.*—By Dr. W. H. WHILES, D.P.M.

A single man (E.N.D.), aged 19, was admitted on July 27th, 1937, because of acute violence and excitement.

On July 21st, 5 days before admission, he had come home from his work as a chauffeur feeling excessively tired and had vomited once. The following afternoon he had 3 "fits" in succession. Clonic movements, frothing at the mouth and incontinence of urine were stated to be present. Coma followed.

He was immediately removed to the Leicester Royal Infirmary and remained in coma 1 day. On regaining consciousness he became restless and apprehensive, saying that people in the ward were talking about him. On the 26th he suddenly became excited, leapt from his bed and ran home through the streets. He was certified and admitted here the following day.

On admission he was extremely violent and excited, shouting that people were going to murder him. He was disorientated for time and place and could give no account of himself. His conversation was rambling and inordinately sexual. There were no abnormal physical signs except severe blistering of the soles of the feet. He remained excited, elated, completely out of touch with reality and masturbated openly.

On July 31st, 3 days after admission, he became drowsy, rapidly passed into a semi-comatose state and was doubly incontinent. The temperature was 100° F., pulse 102 and respirations 22. The pupils were large, equal, and reacted normally. The optic fundi were normal and the corneal reflexes were not diminished. The abdominal reflexes were absent. The tendon reflexes were present and equal on both sides. Plantar reflexes were flexor. There was no head retraction or other abnormal physical signs.

*Cerebro-spinal fluid.* Pressure 250 m.m. Globulin 14 m.g. Protein not increased; Sugar 66·6 m.g.% Cells 2 large lymphocytes 26 small lymphocytes per c.m.m. Wassermann Negative. Colloidal Gold, 0000000000.

*Blood.*—Count: haemoglobin, 108 per cent.; red blood cells, 5,780,000; C.I., 1·00; leucocytes, 23,800; polymorphs, 87 per cent.; eosinophils, 1 per cent.; large lymphocytes, 6 per cent.; small lymphocytes, 4 per cent.; hyaline, 2 per cent.

Blood Wassermann was negative. Sugar, 111·1 m.g. per cent. Blood culture sterile. Widal negative to *B. typhosus*, paratyphosus A and B. *Faeces*: culture—*B. coli* only. Urine: S.G. 1,022. Acid, albumen, nil. Sugar, nil. No deposit.

Coma deepened. The corneal reflexes diminished, the tendon reflexes became sluggish and swallowing difficult. There was still no head retraction or other abnormal physical signs.

Lumber puncture was repeated on August 2nd and the pressure was no longer raised. Cells :—

Small lymphocytes	...	...	...	335	per c.m.m.
Large lymphocytes	...	...	...	7	" "
Polymorphs	...	...	...	136	" "

The temperature gradually rose to 104° F. and the patient died on August 3rd without recovering consciousness.



*Post-mortem.*—The meningeal vessels were engorged and the whole brain was considerably congested, being a uniform pink colour. The cut surface was dry and showed numerous minute vessels both in the grey and white matter. This was more marked in the cerebral hemispheres and mid-brain than in the pons or medulla, the cerebellum being least affected. There was very little fluid in the ventricles and the choroid plexus was congested on each side.

*Histology.*—The most striking feature was the marked vascular dilatation. Some of the vessels showed peri-vascular cuffing, while in others the inflammatory cells were more confined to the adventitial spaces. The cells were mainly small lymphocytes with a few large mononuclears. As is usual in these cases, no polymorphonuclear cells were seen. In addition to the perivascular findings there were areas of diffuse infiltration with small lymphocytes. The meninges showed congestion but no other noticeable change.

The other organs of the body showed congestion only, the kidneys being particularly hyperaemic.

*Commentary.*—This case was particularly interesting in that the mental picture on admission was suggestive of acute schizophrenia with hallucinations, ideas of reference and excitement. It was only the history of "fits" before admission which suggested an organic state.

#### *Out-Patient Centres.*

Out-patient centres continue to be run at the "Tower House" at the "Francis Dixon Lodge," a unit opened in July, 1936, for the treatment of selected voluntary patients of both sexes, and at the Leicester Royal Infirmary.

At least 4 members of the medical staff have devoted time to out-patients, of whom a number of suitable cases have received treatment on analytic lines. Individual visits paid varied from 1 to 53.

Of the 105 patients seen during the year at the "Tower House" and "Francis Dixon Lodge" centres, 72 were new cases. Eighteen patients were admitted to the hospital on a voluntary basis, and 3 under certificate. In all 742 visits were recorded. The new out-patients seen were classified as follows:—

Psychoneuroses, 29; manic-depressive psychosis and involutional melancholia 12; schizophrenia, 9; paraphrenia and paranoia, 5; senile states, 2; epilepsy, 3; mental defect, 3; organic diseases, 3; alcohol and drug addiction, 2; delinquency, 4.

#### LIII.—FROM THE CITY OF LONDON MENTAL HOSPITAL.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following is a summary of work carried out in the laboratory during the year:

Analyses of specimens of urine, 718; quantitative, 12; blood cell counts, 3; examinations of specimens of faeces and urine for bacillus typhosus, etc., 142; examinations of sputa, 8; of swabs, 1. c.s.f., cell counts, 2. Preparation of all media, sugars, stains, etc.

#### LIV.—FROM THE NEWCASTLE-UPON-TYNE CITY MENTAL HOSPITAL.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following examinations were made during the year:—

Urine: routine, 1,006; special (including bacteriological and chemical), 207; faeces: bacteriological, etc., 6; blood—counts, 203; films (malaria, etc.), 576; Widal reactions, 20; Wassermann reactions, 10; chemical examinations, 6; c.s.f.—Wassermann reactions, colloidal gold curves, etc., 18; bacteriological swabs and cultures, 10; sputum examinations, 20; post-mortem examinations, 29 (31 per cent. of deaths).



## LV.—FROM THE NEWPORT BOROUGH MENTAL HOSPITAL.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following examinations have been carried out during the year :—

Urines : routine examinations 141; microscopic, 7; blood : differential counts, 4; total cell counts, 9; Wassermann reactions, 9 (at County Laboratory). Examinations of sputums, 3; faeces, 3.

Cardiazol treatment for schizophrenia was begun at end of the year.

## LVI.—FROM THE NORWICH CITY MENTAL HOSPITAL.

*General Report.*—By Dr. C. R. F. HALL, Medical Superintendent.

*Laboratory Work.*

The following is a summary of the work carried out during the year :—

Urine : general and chemical examinations, 817; bacteriological, 197; blood Wassermann reactions, 6; complement fixation tests, 6; nasal and throat swabs : bacteriological, 2; c.s.f. : chemical examinations, 9; Wassermann reactions, 5; hairs scales, etc. : parasitological, 4; washings from infected laundry tank : bacteriological, 11; washings from the hydro-extractor : bacteriological, 2; milk : bacteriological from home farm, 23; from contractors, 17; gastric contents : chemical examinations, 2; tissue : histological, 4; museum specimen mounting, 1; post-mortem examinations, 24 (54 per cent. of deaths).

*Dysentery.*—During the year only 1 patient was notified, J.W.P., admitted November 7th, 1924. B. sonne was isolated from a rectal swab January 16th, 1937. Recovery was made in 6 days from onset. Rectal swab, August 28th, 1937, revealed B. proteus, faecal type but no other non-lactose fermenting bacilli.

*Prominal in Epilepsy.*—By Dr. I. G. MILLAR PAGE.

Twenty-four epileptics have been treated with prominal; bromides and luminal had both been tried previously in each case.

The results of 15 cases was read in a paper at the Second Annual Meeting of the International League Against Epilepsy, British Branch.

Each patient has shown a marked diminution of confusion; most are now working. Individual dosage is the keynote to success with this therapy. Only 2 slight cases of idiosyncrasy were noted; commencing with a small dose, and gradually increasing it, obviates this difficulty. Even advanced insane epileptics were markedly improved both in diminution of fit incidence and lessened confusion. In a few patients who had grand mal and petit mal fits, it was found that prominal controlled the grand mal type of fit better than the petit mal. Those in whom only grand mal had been usual, petit mal fits sometimes took place before cessation of fits. During the year 3 patients ceased having fits while taking prominal; 1 patient had only 1 grand mal, another only 2 petit mal fits during the year; previously each had had numerous regular fits. Prominal may take 4 days to show its maximum effect when continued, and on sudden cessation, fits did not as a rule take place until 4 days after prominal had been withheld. After 6 months continuous therapy, larger doses may be taken without producing drowsiness and unsteady gait. One patient before taking prominal always had the grand mal type of fit, but on increasing the dose, only petit mal fits were noted, and further increase in prominal resulted in cessation of fits altogether. Cases of petit mal do not show a ready diminution in fit incidence, but in all cases lessened confusion is most noticeable.

(“Prominal in Epilepsy,” *Brit. Med. Jour.*, March, 1936.)



## LVII.—FROM THE NOTTINGHAM CITY MENTAL HOSPITAL.

*General Report.*—Communicated by Dr. G. L. BRUNTON, Medical Superintendent.

*Routine Pathological Work.*

*Summary of Examinations.*

Urine : routine, 1,475; microscopical, 239; tests for ketones, 51; urea estimations, 6; Esbach, 40; tubercle bacilli, 15; cultures, 6. Blood : total counts, 19; microscopical, 90; malarial enumerations, 224; urea clearance tests, 7; urea estimations, 29; glucose tolerance curves, 12; Van den Bergh reactions, 100; fragility tests, 2; Kahn tests, 195 (Wassermann reaction done concurrently at City Laboratory); cultures, 3; sedimentation tests, 6. C.S.F. : Kahn tests, 131; colloidal gold reactions, 125; bi-coloured guaiac tests, 125; globulin reactions, 131; cell counts, 24. Faeces : cultures, 64; tubercle bacilli examinations, 22. Sputa : cultures, 48; tubercle bacilli examinations, 140. Miscellaneous : throat swabs, 6; bacteriological examinations of pus, 33; milk examined for tubercle bacilli, 2; bacteriological examination of food samples, 6; milk analyses, 24; fractional test meals, 4; occult blood, 13. Histological : pituitary glands, 6; lung, 1; liver, 2; cerebral neoplasm, 1. Post-mortem examinations, 46 (84 per cent. of deaths).

*The Autonomic Nervous System in Psycho-neuroses and Psychoses.*

Investigations have been carried out during the year by Dr. Macmillan and Dr. Fischgold on the state of the autonomic nervous system in psycho-neurotic and psychotic conditions. This is being correlated with appropriate therapy, and in the case of the psycho-neuroses additional evidence is thereby being gained as to the essential nature of these conditions.

This work is being continued, and is now being extended to include correlation with metabolic and biochemical changes.

## LVIII.—FROM THE CITY OF PORTSMOUTH MENTAL HOSPITAL.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following is a summary of routine laboratory work during the year :—

Urines : routine, 462. Blood : Wassermanns, 100; Widal's, 22; counts, 13; differential counts, 13; malarial parasites, 5; sugar estimation, 2; urea estimation, 1; cultures, 25. C.S.F. : Wassermanns, 14; globulin, 14; C.G. reactions, 42; cell count, 42. Bacterial : sputum, 7; faeces, 24; urine, 9; pus, 5; throat swabs, 3. Milk supply, 2. Milk analysis, total estimation 1,062. Histology : pituitary gland cut and stained, 1; breast, 2; lung, 3; brain, 2; kidney, 1; liver, 1. Post-mortem examinations, 23 (26·7 per cent. of deaths).

## LIX.—FROM THE SUNDERLAND BOROUGH MENTAL HOSPITAL.

*Laboratory Report.*—Communicated by Medical Superintendent.

The summary of routine laboratory work is as follows :—

Urines, 179; sputa, 18; blood counts, 15; blood films, 21; C.S.F., 13; throat swabs, 2; Widal's, 3; faeces, 3; occult blood tests, 2. Post-mortem examinations, 24 (80 per cent. of deaths).



## LX.—FROM THE SWANSEA COUNTY BOROUGH MENTAL HOSPITAL.

*Report of Research.*—Communicated by Dr. N. MOULSON, D.P.M., Medical Superintendent.

## A.—Clinical.

- (1) *Further observations on the excretion of sodium barbitone in Epilepsy.*  
By Dr. E. H. KITCHING, D.P.M.

Continuing the work done in 1936 on the excretion of sodium barbitone, the urea barbitone ratio was estimated in 20 epileptic patients. The results show that epileptic patients, particularly during periods of slight or severe confusion, tend to retain barbitone, and show a diminished and delayed excretion in the urine.

- (2) *A Case of Agranulocytosis.* By Dr. E. H. KITCHING, D.P.M.

O.J., male, aged 23, was admitted to this hospital on July 3rd, 1936. He showed schizophrenic symptoms with negativism, stereotyped movements and mannerisms. His physical condition was good. He was given small doses of sodium barbitone. On October 28th, 1937, he complained vaguely of abdominal pain. His temperature rose and within 24 hours was 105 degrees. The next day he had a relaxed stool, and was incontinent. A blood count showed a severe leucopenia and further counts taken during the next 48 hours showed a progressive diminution of the granular series of leucocytes. The diagnosis of agranulocytosis was made, and he was treated by means of intramuscular and intravenous injections of pentnucleotide. On October 31st, 1937, he died.

Port-mortem examination showed extensive necrotic processes involving the mucosa of the colon. There was no throat lesion. Smears of the bone marrow showed the presence of myelocytes and lymphocytes, of unknown origin. A full account of the case was published in the *Lancet*, January 8th, 1938.

- (3) *Observations on Somnifaine Narcosis.*—By Dr. E. H. KITCHING, D.P.M.

Several patients are being treated by means of somnifaine, insulin and glucose, according to the Cardiff technique. It is intended to complete a series of 20 cases. Up to the present, 11 have undergone narcosis, but in no case have we been able to observe any appreciable improvement.

- (4) *Observations on the use of Benzedrine.*—By Dr. E. H. KITCHING, D.P.M.

Several cases have been treated by means of benzedrine sulphate in doses ranging from 5 to 20 milligrammes in the day. We find this drug to be of benefit in occasional cases of mild depression. In other cases, however, it seems to have had no effect, and it does not appear at present that its action can be recorded as reliable and consistent.

## B.—Psychotherapeutic.

- (1) *Hypnosis in Mental Hospital Practice.*—By Dr. C. L. COPELAND, D.P.M., and Dr. E. H. KITCHING, D.P.M.

This article was published in the *Journal of Mental Science*, May, 1937, and embodied a summary of 20 cases treated through the technique of hypnosis. Of the 20 cases, 13 were amenable to hypnosis, and of these 11 showed an undoubted marked improvement, in most cases amounting to complete recovery.



- (2) *A Case of Profound Dissociation of the Personality*.—By Dr. C. L. COPELAND, D.P.M., and Dr. E. H. KITCHING, D.P.M.

An account of this case was published in the *Journal of Mental Science*, November, 1937. In brief the case was one of a girl suffering from a domestic conflict. She avoided this conflict by a series of extensive fuges, with amnesia extending over a period of several months. By means of hypnosis the memory gaps were filled in. She recovered completely, took up her former occupation, and is most happily married.

C.—*Pathological*.

*Laboratory Work*.—Under the supervision of Dr. A. F. SLADDEN, M.A., assisted by Mr. A. DIGNAM.

The routine and other laboratory work in 1937 increased by about 50 per cent. on the previous year.

Blood : R.B.C. counts, W.B.C. and Hb., 89; differentials and R.B.C. diameters, 82; polynuclear analysis, 7; platelet counts, 1; Wassermann reactions, 210 (19 positive); films for malaria parasites, etc., 14; Van den Bergh reactions, 5; sedimentation rate, 3; coagulation time, 1; glucose tolerance curves, 9; glucose estimations, 19; urea estimations, 64; bromide estimations, 176. C.s.f. : Wassermann reactions, 106 (10 positive); in only one case did this disagree with the blood. Colloidal gold reactions, 99; protein estimations, 99; globulin tests : Pandy, 99; Nonne-Apelt, 99; cell counts, 99; chloride estimations, 99; glucose estimations, 99; bromide estimations, 34; urea estimations, 2. Urine : routine, 1,048; tests for ketosis, 1,048; tests for phenyl pyruvic acid 1,048; microscopy, 156; sugar estimations, 108; urea estimations, 35; chloride estimations, 1; Ph. estimations, 26; urea concentration 1; urobilin, 2; protein estimations, 48; total acidity estimation, 27; barbitone estimations, 50. Bacteriological : Sputum for T.B. and general bacteriology, 18; pus and discharges, 23; throat swabs, 7; urine, 75; faeces, 578; C.s.f., 2; pleural fluids, 2; fasting gastric juice, 2; blood cultures, 24; agglutinations (for diagnosis and for identification of bacteria), 761. General : hairs for ringworm, 1; fractional test meals, 2; histological sections, 80; post-mortem examinations, 53 (80 per cent. of deaths).

*Barbiturate excretion*.—Early in the year the later stages of Dr. Kitching's research into barbiturate excretion were completed.

*Bromide accumulation*.—A routine test of the blood in all new admissions for evidence of bromide accumulation has been instituted and is found to be a useful guide in treatment. In 75 per cent. of cases increase of bromide has been found.

*Phenylketonuria*.—The urines of all patients admitted are now tested for the presence of phenyl pyruvic acid which has been described as occurring in the urine of certain types of mental defectives; so far all the tests made have proved negative.

*Dysentery*.—At the latter end of the year very heavy work devolved on the laboratory in consequence of a wide-spread outbreak of mild bacillary dysentery. Large numbers of infections by the Sonne dysentery bacillus were detected and also a substantial number of Flexner infections; the latter is well known to be endemic in many mental hospitals, and earlier in the year 3 cases had been found, but of a different strain of this bacillus.

In this Autumn outbreak mixed infections were also found in a proportion of cases; and, from a large amount of detailed bacteriological work, an impression was derived that some basic condition, whether of climate, season, water-supply or otherwise, might be favouring the activities of intestinal bacteria in general and that dysentery bacilli, which normally may be latent in a proportion of the population, were enabled thereby to become more active and apparent.

A carrier of paratyphoid B was discovered in the course of routine work and was subsequently dealt with successfully by surgical measures.

A carrier of typhoid was also disclosed.



## LXI.—FROM THE WEST HAM BOROUGH MENTAL HOSPITAL.

*General Report.*—By Dr. G. SOMERVILLE, D.P.M., Medical Superintendent.

It is the policy of this hospital to permit and to encourage a certain independence in the scientific and research activities of the medical staff. All the modern treatments are employed on male and female sides, but a considerable degree of independence allows more scope to individuality with its advantages of freshness of outlook and unrestricted enthusiasm. Daily conferences between the various workers allow of the sharing of experience and of arriving at a common policy in regard to matters of administration.

*General Paralysis of the Insane.*

In all, 10 cases of General Paralysis of the Insane were admitted. One was extremely ill on admission and died within 3 weeks. All the others have had malarial treatment followed by a full course of N.A.B., this in turn followed by a full course of intramuscular bismuth. Two cases had intrathecal salvarsanized serum by the cisternal route according to the Swift-Ellis technique. All these cases were well advanced in the second stage when admitted. Three have been discharged; in 2, the disease appears to be stationary, whilst in the remaining 4 there is improvement. In cases which stay in hospital, we prescribe a mercury and potassium iodide mixture 3 months after the completion of the initial treatment. Following Pötzl's procedure, we give a second course of malaria 12 months after the first. We endeavour to persuade the discharged patients to re-submit themselves for assessment at 3-monthly intervals. Tryparsamide is given to malarial resistant cases.

*Diabetes Mellitus.*

We have been impressed with the frequency of this disease in "involutional melancholics." If, on admission, there is the slightest trace of confusion, diminution of reflexes or complaint of pruritis or paraesthesia, we give 100 grammes of glucose, and test the urine for sugar. If there is then glycosuria, we perform a sugar tolerance test. If there is no glycosuria, we do a simple fasting blood sugar. If this is normal, we omit the curve. Five cases of diabetes have been unmasked by these methods and all have done well on insulin. The St. Bartholomews' 100 gramme diet (with a daily variation of menu) is supplied on requisition from the main kitchen, and is used as a basis. Additions are made in the wards by the nursing staff who have been supplied with the necessary scales and tables of food values. We have been gratified by the enthusiasm and trustworthiness of the nurses in regard to these diets. One can prescribe "100 gm. diet plus 20 gm. Carbohydrate plus 5 gm. Protein, Insulin Units b.d. 20" and rely on its being accurately given.

*"Intestinal Toxaemia."*

Early in the year past, we were impressed with the good results obtained by gastric lavage on cases admitted with dry, dirty mouths, and alterations of consciousness. We have therefore introduced the following routine in all such cases. The results have been most satisfactory. Marked amelioration of the mental and physical symptoms occurs within 3 days in all cases.

A nasal tube is passed, and the stomach washed out with sodium bicarbonate solution, drachm 1 to the pint. Three pints are used in 3 equal parts. A careful watch must be kept on the abdomen, as frequently only half the amount is recovered. Before withdrawing the tube, an ounce of castor oil is run in. Thereafter a colonic lavage with sodium bicarbonate solution is given daily for a week.



*Insulin Shock, Cardiazol.*

On the *male side*, 33 cases of schizophrenia were treated by Sakel's "Insulin Shock" method. Allowing for holidays, Sundays, etc., the treatment was given on 238 days. The "patient days" were 1,302 with 1,172 comas, using in all 142,871 units of insulin.

The average length of treatment per patient was 67.75 days. It varied between 20 days and 120 days.

Only 20 of the cases are quoted in assessing the results as a number are still under treatment, and in 5 cases treatment had to be suspended for physical reasons (cardiac asthenia). There were 48 epileptic fits during coma in 16 patients. This is a low figure and is due to the fact that prominal has been given to patients whenever the susceptibility to fits has tended to hinder the full course of treatment. There is no doubt that an occasional fit is beneficial, but daily fits are bad. In some cases, where the patients had progressed up to a point and were then stationary, cardiazol was given during hypoglycaemia to induce a fit, usually with benefit. This combined treatment was given in 9 cases during the period under review.

Beyond definitely establishing the diagnosis and excluding the acute excitements that were likely to remit spontaneously within a few weeks, the patients were unselected. All types were included, with durations varying from 6 months to 9 years.

Nine cases of the 20 were discharged and returned to work. Of these, 2 were of 6 months' duration, 2 of 12 months', 1 of 18 months', 1 of 2 years', 1 of 2½ years', 1 of 4 years' and 1 of 9 years' duration. Of the remaining 11, 3 showed some clinical improvement, especially in their behaviour and manageability.

We endorse the general experience that katatonics and paranoids do very much better than hebephrenics and simples. We have not had a single good result in pure, simple dementia praecox. Our mortality rate was nil. In all cases there was a definite improvement in the physical condition during treatment. In the five "cardiac asthenia" cases, the heart was no worse after treatment.

During the year 1937, 23 *female* patients have been treated by insulin shock. In the earlier part of the year, insulin alone was used. Toward the end of 1937, a combination of insulin and cardiazol was employed, and we believe from our experience with these female patients that the combined treatment is therapeutically more effective than that of insulin alone. In cases of shorter duration than 18 months the results were good, and out of 9 patients in this class, 6 are now at home. Where the duration was greater than 18 months the results were poor, and only 1 patient went home; she made an excellent recovery after undergoing a status epilepticus composed of ten hypoglycaemic convulsions. This was described in the *British Medical Journal* for June 19th, 1937, and an abstract of this paper is appended.

Out of the series of 23 cases, 5 failed to complete the course for the following reasons :—

1. Cardio-vascular collapse.
2. Acute bacillary dysentery.
3. Acute pyelitis.
4. Extreme cardiac irregularity that did not respond to digitalis, nor to rest from treatment.
5. Repeated laryngeal spasm.

There were no fatalities during treatment.

In describing the results, the cases are classed as (A) where the psychosis is less than 6 months' duration, (B) between 6 months and 1 year, (C) between 1 year and 18 months, and (D) over 18 months.



Given with the results are the patients' initials, type of insanity, age, duration class, number of comas, number of insulin days, and number of insulin fits.

The results are classed as follows :—

†† represents a complete remission with insight, and with absence of schizophrenic symptoms.

† represents a remission where 1 schizophrenic symptom remains, usually lack of insight.

\* represents a partial remission, with ability to work, but symptoms remain without interfering with the daily life.

0 represents patients unimproved and still requiring hospital care.

No.	Initials	Type	Age	Class	Comas	Days	Fits	Results
1	A.B.	Par.	20	A	51	62	1	0
2	C.B.	Hebe.	27	A	30	39	—	†
3	D.H.	B.S.	19	A	18	26	—	††
4	E.S.	Mel.	34	A	72	77	—	††
5	M.S.	Hebe.	21	A	35	48	—	†
6	A.E.	Par.	16	B	51	60	8	0
7	I.H.	Par.	29	B	59	78	1	0
8	A.F.	Hebe.	26	B	30	44	1	†
9	O.B.	Cat.	29	C	65	82	2	†
10	F.B.	Hebe.	35	D	60	73	1	0
11	J.B.	Par.	32	D	4	10	10	††
12	D.S.	Cat.	29	D	50	60	0	0
13	J.F.	Hebe.	26	D	60	71	1	0
14	E.R.	Hebe.	22	D	50	61	0	0
15	V.T.	Par.	22	D	50	60	0	0
16	V.G.	Cat.	28	D	70	81	1	0
17	S.S.	Hebe.	30	D	63	74	1	0
18	A.B.	Cat.	39	D	71	76	1	0
19	F.G.	Hebe.	25	C	2	7	0	0
20	M.Y.	Hebe.	20	C	30	48	1	0
21	B.N.	Cat.	28	D	0	20	0	0
22	B.E.	Cat.	20	D	24	43	2	0
23	F.L.	Cat.	27	D	18	29	0	0

Cases 1 to 18 completed their course of treatment.

Cases 19 to 23 failed to complete course on account of :—

19 showed cardio vascular collapse.

20 fell ill with bacillary dysentery.

21 fell ill with pyelitis.

22 began to show extreme cardiac irregularity that did not respond to digitalis.

23 showed laryngeal spasm on two occasions during hypoglycaemia.

PAR. Paranoid schizophrenia.

HEBE. Hebephrenic schizophrenia.

CAT. Catatonic schizophrenia.

B.S. Benign stupor.

MEL. Acute meloncholia.

#### *Female Cases—Cardiazol Treatment.*

In the female wards we have been using cardiazol since May, 1937. However, we have mainly been using cardiazol in combination with insulin, and so we have no adequate figures to quote for cardiazol alone. In our next



report we shall submit figures for a series treated solely by cardiazol. We have been, however, very favourably impressed by the effects procurable with cardiazol, and in this place we would describe two cases of interest. It is our intention in the future to treat all our recent schizophrenics in the female wards with insulin plus cardiazol. We have described the rudiments of the cardiazol treatment in a paper printed in the *Lancet* of July 17th, 1937.

*Illustrative cases.*

Case 1. M.J., aged 24 years on admission on April 27th, 1934. This patient was admitted in a state of resistive stupor, and remained thus throughout her stay. It was rarely possible to have her out of bed, and she was violent, impulsive, doubly incontinent and quite inaccessible. She was generally recognized as the most "difficult" patient in the hospital. There were adequate psychic causes for her psychosis.

Cardiazol treatment was begun, and after the second induced convulsion remarkable improvement was noted. She became coherent, relevant, rational, pleasant and occupiable. She would discuss music, literature, topical and family affairs in a normal manner. For extraneous reasons her treatment was stopped after some half dozen convulsions, and in the course of a day or so she relapsed again into her stupor. When treatment was begun again she again improved, to relapse once more when treatment was stopped temporarily after a further 4 convulsions. Since then her treatment has been recommenced and she has resumed her remission, which is maintained by twice weekly cardiazol convulsions. She shows good insight. This case is described principally because of the long duration of the psychosis, and secondly because of the demonstrable value of using cardiazol in chronic antisocial patients. Even in chronic cases we have learned to be optimistic regarding the results of treatment, whether by cardiazol, insulin or somnifaine, in those cases where there has been adequate cause, psychic or physical, for the psychosis. We have found also that a healthy pre-psychotic personality, and a clouding of consciousness in the psychosis, are factors of good prognostic omen.

Case 2. M.S., aged 24 years on admission on June 8th, 1937. Unlike case 1, she had exhibited the classic schizoid personality all her life. On admission she was in a hebephrenic state with aural hallucinations and engrossment in phantasies. She had 9 cardiazol convulsions and improved vastly. If she had stayed thus she would have been classed as an incomplete remission, but unfortunately she had gained considerably in weight and this increased fat, coupled with thrombosis of some of her veins, prevented further intravenous therapy. Some 3 days later she had deteriorated into her former hebephrenic state. A week or so later insulin treatment was begun and after 48 days' treatment, involving 35 comas, she showed an incomplete remission and was discharged. Two months later she is still well. This case is described mainly to show how it would appear that insulin and cardiazol exert similar therapeutic effects on the same case. As against the views on prognosis put forward above, this patient had shown a pre-psychotic personality that was schizoid, while there were no adequate causes for her psychosis. However, she is the only patient in all our series to show a remission in the presence of so many apparently malignant features.

*Dosage of Cardiazol.*—In general we can confirm Meduna's view that the prognosis is better in those cases where a strong convulsion is produced by small doses of cardiazol. The largest dose we have had to give to produce the first convulsion is 12 cc. of the 10 per cent. cardiazol solution; this was injected 1 minute after 11 cc. had failed to produce a convulsion. Using cardiazol alone the smallest dose with which we have been able to procure a convulsion is 4.5 cc. Using cardiazol during hypoglycaemia we have in one case induced a convulsion with  $2\frac{1}{2}$  cc. We have seen no significant ill-effects follow cardiazol treatment.



*Somnifaine Narcosis.*

During 1937 we treated 14 females with somnifaine. Several cases had repeated treatment, so that the total number of treatments given was 19. The cases were mainly chronic excited schizophrenics, and the aim of treatment was to effect social improvement. However, 2 patients recently admitted recovered after the treatment and went home and to work. Our opinion is that in chronic schizophrenia, i.e. over 2 years' duration, somnifaine treatment has little more than an administrative value.

We used the insulin and glucose technique, and aimed for a period of 10 to 14 days' narcosis, which was usually achieved by doses of somnifaine 4 cc. per diem and occasional 2 drachm doses of paraldehyde. We saw no fatalities or any serious complications.

*Laboratory Work.*—The following is a summary of examinations made during the year :—

Wassermann reactions : blood, 160; c.s.f., 70. C.s.f. examinations : Lange, 57; Gamboge, 16; protein, 14. Blood estimations : counts, 44; sedimentation, 15; sugar, 30; urea, 6. Urine examinations : estimation of sugar, 52; albumen, 17. Van den Bergh's test, 5. Glucose tolerance test, 31. Cultures, 141. Microscopic examinations slides, 124. Post-mortems, 54 (63 per cent. of deaths).

*Publications.*

"Insulin Shock Treatment of Schizophrenia." By E. H. Larkin, *Brit. Med. J.*, April 10th, 1937, Vol. 1, p. 745.

"Hypoglycaemic Therapy in the Psychosis." By H. GILLIES, *Brit. Med. J.*, June 19th, 1937, Vol. 1, p. 1254.

"Convulsive Therapy in Schizophrenia." By H. GILLIES, *Lancet*, July 17th, 1937.

## LXII.—FROM THE BETHLEM ROYAL HOSPITAL.

*Report of Work in the Pathological and Psychological Departments.*—Communicated by Dr. J. G. PORTER PHILLIPS, F.R.C.P., Physician Superintendent.

A.—*Pathological Department.*—Dr. CLEMENT LOVELL, M.C., Director.

During the year the number of routine investigations increased by 350 to a total of 1,695. These included :—

Wassermann reactions, 176; V. den Bergh tests, 178; blood counts, 193; other special chemical and physical estimates, 225.

The water and milk supplies were examined at intervals.

Use is now being made of agglutination tests for the localization of septic foci.

Research work has been directed mainly to the toxæmias and to fat metabolism. In the *British Medical Journal* of October 2nd, 1937, Vol. 11, p. 656, we published an article on cerebral oedema. An abnormal condition of the serum is described which is nearly always associated with signs of pancreatic inflammation; this inflammation is generally ascending from the intestine and is patchy in distribution. Glycosuria is rare, insulin is ineffective. The altered blood state predisposes to oedema and to low-grade infections.

B.—*Psychological Department.*—Mr. R. J. BARTLETT, M.Sc., Director; Dr. B. W. F. ARMITAGE, Assistant Director.

*Kretschmer's Psychobiogram.*—The work on "Motor Tempo" traits was sufficiently advanced by July, 1937, for the Director and Assistant Director to read papers on the subject before the British Psychological Society. Twenty traits founded on the Psychobiogram (Kretschmer: *Medical Psychology*,



p.224, column "Psychomotility") were graded for individual patients by the physicians, a judgment on each trait for each patient being thus secured instead of the more customary report on a few traits most marked in any patient. These gradings were submitted to statistical treatment. In the first instance all possible correlations between the estimates for 32 male patients were calculated and examination of these showed that the patients could be divided into 7 groups, the correlation links within which were in no case less than 0.55 and in five groups varied from 0.75 to 0.93. The grouping was found to have definite clinical significance and assisted in the better understanding of cases of doubtful diagnosis.

Factor analysis by Thurstone's Multiple Factor Method showed that the groups could be explained as blends of three major factors modified, in some cases, by some two or three minor factors.

Analysis of larger groups—130 males and 70 females—is in progress and similar work has been commenced on estimates of Moods, Psychic Tempo, and Social Attitudes.

*Lowenfeld's Mosaics.*—Members of the staff and senior students of the Institute of Child Psychology went through the male wards twice, collecting mosaics from all patients who were sufficiently co-operative. These were first grouped in accordance with the scheme in use at the Institute and later in various other ways indicated by the nature of the material.

It seems clear that in the mosaic we have a reflection of the personality of the patient, but the great variety of the material makes the task of analysis a difficult one. It is hoped that with a more complete analysis, now in progress, it will be possible to correlate groupings with diagnosis and prognosis.

Improvement in the patient's condition is accompanied by advance in the mosaic work and the making of a mosaic is, with certain patients, a means of putting them at their ease and establishing friendly relations. When a patient is working with interest and commenting on the work, valuable points of contact emerge. For this reason, tentatively, mosaic-making has been added to the tests given by the department.

*Intelligence Tests.*—The Terman-Merrill New Revision of the Stanford-Binet Tests has been used in the department since it was made available in England this year. In giving three grades of Superior Adult, instead of one only, it secures much better discrimination. The scores, however, seem high, giving, for patients tested, a median value of the I.Q. of 128, with an interquartile range of 33, from 109 to 142. In one case the highest score obtainable by an adult in the test (152) was secured, and 15 per cent. only, of the cases tested, gave an I.Q. below 100.

Contributory to these results are the very high scores obtained in the new vocabulary test and, in view of the use of the older Terman Vocabulary test in the estimation of amount of mental deterioration, a careful investigation of the reason for these high scores is desirable. It is possible that, for English subjects, a somewhat more difficult vocabulary test will be necessary to bring it into line with the other tests. The alternative possibility, that all patients suffer from a temporary deterioration of intelligence, seems unlikely.

Another noticeable result is the wide spread of years over which some, but not all, tests are passed. The difference between the Basic Age, at which all tests are passed, and the Mental Age, obtained by giving credit for all correct results, is often as much as 4 years and in one case amounted to 7. It will be of interest to learn if this is true of normal adult subjects.

The correlation between the scores given by this new revision and scores obtained from the non-verbal "G" tests in use in the department does not appear to be high but a greater number of cases is necessary before it will be possible to speak with confidence on the matter.

*Clinical Cases.*—The test work of the department, consisting principally of intelligence tests, free association tests, and latterly, mosaic tests, has



proved of considerable value in indicating the nature of treatment that seems desirable and, in a number of cases, the department has given assistance with that treatment. Two cases thus dealt with seem worthy of record :—

A.—A male patient of 27 years who had relinquished good but uncongenial employment to return to college for special study was admitted on November 2nd, 1936, with a history of being found wandering in a dazed condition a month before and having on occasion looked past people when talking to them and giggling and having attended his studies very irregularly for some months. He gave no other evidence of schizophrenia. He, however, complained of feeling that he was composed of two persons, one kind and sympathetic, the other completely amoral. He said that when in the amoral state, he lied very efficiently and demonstrated his ability to forge.

Free association tests quickly gave contact with his principal difficulties and the need for mental occupation emerged. This was supplied by giving him the necessary instruction to enable him to carry out the detail work of the statistical analysis that is in progress on the Kretschmer Estimates and then entrusting the calculations to him. Discussion of this work was interspersed with discussion of the problems that had worried him, but these latter dropped more and more into the background as the new interest developed. Highly satisfactory progress was made and the patient was discharged, "recovered," 14 months after admission.

This patient is the one whose I.Q. is higher than the provision made in the Terman-Merrill Revision. In the hope of assisting him to secure the right form of employment the National Institute of Industrial Psychology kindly co-operated by giving their Vocational Guidance Tests. Their report was highly satisfactory, and, as a result, it is expected that he will be enabled to take up work in which his marked sociability and powers of leadership, as well as his mathematical ability will be usefully employed.

B. A male patient of 52 years, about a year after retiring from a successful career in the East was admitted on August 1st, 1936, in a state of agitated depression which was soon followed by auditory hallucinations in which he heard voices accusing him of various crimes, including murder. Orientation was normal. He remained like this until August, 1937, when, after a fortnight of semi narcosis treatment he gradually gained insight and lost his depression. Free association tests then gave contact with valuable material and in long conversations he was enabled to review his difficulties from new angles and bring about a reconstruction of the mental outlook. Progress, however, was held up and it seemed probable that some part of his mental worry would prove intractable, until one day a remark, made in explanation of a mosaic pattern that he was executing, opened the way to recall of events in childhood and early manhood that enabled him to understand the connection of his present troubles with the past. Progress was then very rapid and he was discharged, "recovered," 16 months after admission and 1 month after making the critical mosaic pattern.

#### LXIII.—FROM ST. ANDREW'S HOSPITAL, NORTHAMPTON.

*General Report.*—By Dr. N. R. PHILLIPS, D.P.M., Acting Medical Superintendent.

During the year there were 64 new admissions to Wantage House, of which 34 were ladies and 30 gentlemen. Of this number it is interesting to note that 46 were admitted as voluntary patients, 6 were temporary patients, and 12 were certified patients. The high percentage of patients seeking admission for treatment pays tribute to the altered and favourable attitude of the general public towards mental disorder. This change is no doubt attributable to the fact that in these days we have in most cases a definite line of treatment to offer.



I would like to pay tribute here to the new Mental Treatment Act which permits of patients who are unfit for admission as voluntary patients to be admitted without recourse to certification. It fills a long felt need, and no doubt in time it will be more widely applied. It is difficult for those who are not in intimate touch with mental patients to appreciate the tremendous relief and the joy to the physician who is able to inform his patient as he emerges from a confused and stuporose condition that he has not been certified. I mention this point because I was so forcibly struck by its significance on two occasions during the past year.

Seventy-two patients left Wantage House during last year; 51 of this number were considered well enough to return to their own homes; 5 were transferred to other mental hospitals and the remainder are still in residence in some other part of the hospital. There were 6 deaths, all from natural causes and all of advanced age.

*Hydrotherapeutic Department.*—By Dr. D. J. O'CONNELL.

Hydrotherapy has, and I venture to say will have, a foremost position in the treatment of mental disorders. Its application is wide and almost invariably effective. It is to my mind as curative in action while being less arduous and dangerous than its possible alternative—prolonged narcosis. It invariably obviates the necessity of being forced to push the use of sedatives to the point of toxicity.

The segregation of patients receiving prolonged immersion baths is of immense practical value. It ensures the fullest benefits if these baths are enjoyed by the patients who receive them when they are in no danger of being disturbed by a noisy neighbour.

Our Hydrotherapeutic Department is in constant daily use.

*Radiological Department.*—By Dr. D. J. O'CONNELL and Mr. E. TRANMER.

During the year 178 radiological examinations have been carried out. Of these examinations 64 were stereoscopic views of the accessory sinuses, 53 were dental examinations, and the remaining 61 were special examinations:

Cholecystography for the gall bladder.

Pyelography for the kidney and its ducts.

Bismuth Meal for the alimentary tract.

To these must be added 3 pregnant patients who were examined in this department. In the routine examination of the accessory sinuses several patients were found to be suggestive of the slightest infection. Subsequent investigation, however, showed that the majority had cleared up under conservative treatment. The first complete year's work with the new equipment which was installed in 1936 has shown its many advantages to the full where a radiological investigation was indicated. No patients had to be turned down on account of their mental condition. The safety and the short exposure are directly responsible for this very desirable achievement.

From the diagnostic point of view also there is a marked improvement in the texture of the radiographs.

*Electrical Department.*—By Dr. D. J. O'CONNELL.

During the year 280 treatments of various kinds have been given in this department. The far greater number of these has been tonic treatment of artificial sunlight. The average number of treatments per patient is 11.7.

The improved type of sunlight lamp installed during 1936 has given excellent service throughout the year. The lamp has an intense output of ultra violet and an erythema dose can be obtained at 40 inches in 2 minutes. We find this treatment to be a valuable aid in helping to maintain the general health of the patients at a high level. This is most noticeable in respect of



minor ailments, and the incidence of colds, etc., appears to be considerably reduced. Further it may be recorded that it is by no means uncommon for patients undergoing treatment to volunteer the remark that it is doing them good.

To a large extent the infra red ray has superseded the treatment by diathermy. Experience has shown that infra red is more effective in alleviating pain than is diathermy. Further, infra red ray can be used in cases in which it would be dangerous to attempt to apply diathermy because no great co-operation on the part of the patient is necessary.

### *Operations.*

Seven major operations were carried out during the year.

### *Laboratory Report.*—By Dr. W. R. ASHBY.

The following is a summary of the work carried out during the year :—

Blood : counts, 179; calcium, 55; Van den Bergh reaction, 72; cholesterol, 70; urea, 77; sugar, 1; cultures, 4. Urine : routine, 1,552; cultures, 5. Faeces : chemical, 75; bacteriological, 258. Glucose tolerance tests, 63. Test meals, 9. C.s.f., 14. Kahn reactions : blood, 5; c.s.f., 11. Meinicke reactions, 77. Examinations of vomit, 1; of sputum, 28. Throat swabs, 25. C.s.f. culture, 1. Culture of pus, 1. Blood : sedimentation rates, 74; fragility tests, 2; group determination, 1. Vaccines prepared, 1. Friedman pregnancy tests, 4. Histological specimens prepared, 17. Analyses of brain tissue, 40. Examinations of water-cress beds, 72. Post-mortem examinations, 8 (29.6 per cent. of deaths).

*Tissue culture methods in the study of the nervous system : a review.* By Dr. W. R. ASHBY, *Journal of Neurology and Psychopathology*, 1937, 17, 322.

This paper is a review of all the work done on the subject to the end of 1935 and is believed to be complete. A brief mention of the main points was given in last year's annual report.

*Chondro-osteo-dystrophy of the Hurler type (gargoylism). A pathological study.* By W. R. ASHBY, R. M. STEWART, and J. H. WATKIN. *Brain*, 1937, 60, 149.

Most of this paper will probably be described elsewhere. It includes, however, the results of the analysis of this brain for cerebroside, and as this part of the work was done by Dr. Ashby in these laboratories, it is proposed to describe the method used. There appears to be no method in general use except that described by Ashby and Glynn in 1935, and a detailed description may be of interest and use to other workers.

*Method.*—The brain tissue is freed from membranes and dissected, if necessary, into grey and white parts. In these analyses the specimen was taken from the right frontal pole. The tissue is left overnight in running water to remove most of the formalin if it was previously fixed in this. It is then finely chopped and dried in a vacuum dessicator with phosphorous pentoxide to constant weight. This may take some weeks unless an efficient pump is available. During the drying the tissue is ground first to a coarse powder and then to a powder as fine as possible.

It is very important to make sure that all the formalin is removed since formalin is an active reducer of alkaline copper and it will go over during extraction in very variable amounts. In order to make sure that it is all removed, the best way is to heat the dried and finely powdered brain in a hot air oven at 100° C. until no trace of formalin vapour can be smelled and it should then be heated for a further 24 hours. It should be noted that phosphorus pentoxide will absorb some formalin so that after the brain is finally freed from formalin the pentoxide should be changed before returning the tissue to the dessicator otherwise the brain will reabsorb some formalin.



About 0.3 gm. of the dried brain is weighed accurately into an extraction thimble and covered with about an inch of anhydrous sodium sulphate in order to get an "anhydrous" extraction. It is extracted in a Soxhlet apparatus for some hours with chloroform. By weighing the extract it appeared that the extraction is practically complete in 2 to 3 hours but I extracted for 7 hours to make sure. The extract is transferred to a large glass test tube and the extraction flask well washed with chloroform into the same tube. The chloroform is evaporated off over a water bath. The sides of the tube are washed down with a little more chloroform and this is evaporated so that all the extract is collected as a small mass at the bottom of the tube. It is important that the chloroform be driven off completely as it will reduce alkaline copper.

Eight ml. of 5N sulphuric acid are added and the extract hydrolyzed by being kept gently boiling for 1 hour. A hanging glass condenser is inserted in the tube to prevent loss of fluid. For the purpose of heating I used an electric hot-plate with rheostat and found it most convenient since once the rheostat is adjusted it will keep the mixture boiling steadily at any given rate. It is convenient to insert a fine glass rod, suitably bent, between the tube and condenser so that it reaches to the bottom of the tube. It is useful for breaking up foam and for stirring up the rather gummy extract from the bottom of the tube.

At the end of the hour, the tube is cooled, 8 ml. of water are added (to prevent subsequently formed sodium sulphate from crystallizing out), and 1 drop of 0.5 per cent. phenolphthalein is added; 40 per cent. sodium hydroxide is then added drop by drop while the solution is cooled by rotating in cold water.

When 1 drop of the soda has produced the red colour,  $\frac{2N}{3}$  sulphuric acid is added drop by drop until the colour is just discharged. The phenolphthalein makes no difference to the subsequent sugar estimation. The solution is filtered and the tube and filter paper well washed through so as to make sure that no sugar is left behind. Finally the volume is made up to 50 ml.

A weak standard glucose solution is prepared by diluting 2 ml. of 1 per cent. glucose to 250 ml. Sodium sulphate solution is made by dissolving 26.1 gm. of the crystalline salt and making up to 100 ml. This amount of sodium sulphate just balances the sodium sulphate brought in by the neutralized hydrolysate. It is important that this should be balanced as it affects the subsequent colour.

Two ml. of the hydrolysate are put into one Folin and Wu blood-sugar tube. Into the "standard" tube are put 1 ml. each of the weak glucose standard and sodium sulphate solutions. The rest of the procedure follows that of Folin and Wu.

To obliterate any difference of tint between the 2 blue colours, I used a Wratten "A" filter over the eyepiece of the colorimeter.

The molecular weight of phrenosin is 863.7 and that of kersasin is 833.7. If we assume that "cerebroside" consists of equal molecular parts of each, we may give "cerebroside" the hypothetical molecular weight of 848.7. It may be noted that the results given below may be corrected to any other assumed molecular weight by simple multiplication. The arbitrariness of this assumption, therefore, does not really matter. In any case it can introduce only slight alterations in the figures given.

For the calculation, it is easily shown that the percentage of cerebroside, if we extracted  $w$  grams of brain is,

$$\begin{aligned} \frac{S}{U} \times \frac{1}{100} \times \frac{2}{250} \times \frac{50}{2} \times \frac{100}{W} \times \frac{848.7}{180.1} \\ = \frac{S}{U} \times \frac{0.942}{w} \end{aligned}$$

When the method has been finally settled, after much preliminary testing, 3 analyses were made on 1 powdered and mixed sample in order to test the



consistency of the method. Were the method infinitely accurate, the 3 results would be identical. Actually they were : 5.3, 5.8, and 5.4. The coefficient of variation between them is 4.8 per cent. With regard to the possible presence of biased errors, it is difficult to assess this since there is no accepted method with which to compare our results. It is for this reason that it is essential that control analyses of other brains should be included with the analysis of a patient's brain. If we restrict ourselves to comparing the result for his brain with the others, any biased errors will disappear since they will affect all results equally.

*A simple correction for eliminating error due to unequal illumination in the colorimeter.*—By Dr. W. R. ASHBY.

In using a colorimeter it is, of course, of importance that both cups should be illuminated by light of equal intensity. This is not easy to achieve, even with artificial illumination. This is due to the fact that with no coloured solution present, the illumination is usually bright and it is well-known (Weber-Fechner law) that the eye can differentiate only crudely with brighter light. Instead of using elaborate methods for adjusting the 2 lights to equal intensity, it is simpler to allow the 2 illuminations to be different and then to apply a correction.

It has been found that any error due to unequal illumination may be completely eliminated by a simple change of method. This is effected by making the ordinary reading and then interchanging the cups and reading again. A simple arithmetical correction will then *completely* eliminate any effect due to unequal illumination.

The proof will be given first.

It is well known that if light of initial intensity  $i_0$  is shone through a uniform absorbing layer of variable thickness  $t$ , the light ( $i$ ) which emerges is given by the equation

$$i = i_0 e^{-Kt}$$

In the case of colorimeter solutions, the constant  $K$  will be proportional to the concentration ( $c$ ) of the reacting substance : i.e.  $K = K_1 c$ .

Now consider 2 columns : the first of length  $S$  and concentration  $c_1$ , illuminated by light of intensity  $i_1$  ; and a second of length  $U$ , of concentration  $c_2$ , and illuminated by light of intensity  $i_2$ . The lengths have been adjusted in the usual way until they transmit lights of equal intensity. The light which passes through the first tube will be of intensity  $i_1 e^{-C_1 K_1 S}$ , while the second will transmit light of intensity  $i_2 e^{-C_2 K_1 U}$ . But these have been adjusted to be equal so,  $i_1 e^{-C_1 K_1 S} = i_2 e^{-C_2 K_1 U}$ —

Now interchange the cups and adjust again to get equal illuminations, getting depths  $S'$  and  $U'$ . We now get  $i_2 e^{-C_1 K_1 S'} = i_1 e^{-C_2 K_1 U'}$ .

By taking the natural logarithm and solving each equation for  $\log \frac{i_1}{i_2}$ , and then equating the two expressions and cancelling out  $K_1$ , we find that

$$\frac{C_2}{C_1} = \frac{S + S'}{U + U'}$$

$\frac{C_2}{C_1}$ , the ratio of the concentration of the unknown to that of the standard solution, is the quantity always found by colorimeter methods. It will be seen that the expression above does not involve the light intensities ; in other words, this expression is independent of any inequality of illumination.

It will, therefore, give  $\frac{C_2}{C_1}$  correctly no matter how incorrectly the lights may have been balanced.



In practice the method is simple. Make the usual reading of  $S$  and  $U$  (the "standard" and "unknown" readings). Now interchange the cups (to the other sides of the instrument) and read again getting  $S'$  and  $U'$ . Then instead of using the usual  $S$  for the calculation, use  $\frac{S + S'}{U + U'}$ . The result

will now be entirely free from any error due to inequality of illumination.

Whether this correction is needed in practice may be seen at once in any given case by comparing the inexact  $S$  with the exact  $\frac{S + S'}{U + U'}$ . Practical ex-

perience of this test has shown that even with careful preliminary adjustment an error as large as  $\pm 3$  per cent. is not uncommon. A large error will arise most easily when one is working with very small quantities and with rather pale solutions.

*Evipan Anaesthesia in Mental Hospital Practice.*—By Dr. B. F. M. BOND.

During the last 3 years considerable use has been made of evipan as a general anaesthetic for dental surgery or short minor operations. It was felt that the conclusions we have reached as a result of this series might be of interest.

The total number of evipan administrations was 62, of which 47 were on males and 15 on females. The majority were given for dental extractions and for this purpose have given complete satisfaction. The shortness of the list of cases in which it had been given for minor surgery is due merely to the absence of suitable material. It has, however, been used for setting a Collis's fracture, dealing with boils or whitlows, and in 1 case for the drainage of an empyema.

The cases include all types of mental illness except those whose restlessness rendered intravenous medication impossible. Patients were of all ages from 18 to 75 and the only cases excluded were those with the recognized contra indications of low blood pressure, hepatic disease, etc.

Premedication was used on 3 occasions only for unduly apprehensive patients. These were given nembutal, omnopon and morphia respectively with uniformly satisfactory results.

The advantages of this form of anaesthesia may be tabulated as under :—

(1) Speed of induction, curtailing and usually avoiding the struggling or agitation so frequent in inhalation anaesthesia in a mental patient.

(2) Rapid recovery, nearly always without nausea or vomiting. A period of restlessness occasionally occurred and several patients passed into a natural sleep but none complained of any unpleasantness at this stage.

(3) The great saving of time due to the above 2 factors.

(4) Relaxation was invariably good and difficulties and complications few. In two cases only was there any collapse. This occurred at the end of the operation and recovery ensued after the administration of  $\text{CO}_2$  and, in 1 case, Icarol in addition.

The latter case was a very nervous woman whose collapse during recovery was largely hysterical. The former was an old lady known to be in poor physical health but who would never have submitted to any form of inhalational anaesthesia. There were no post anaesthetic complications.

(5) In a large number of co-operative cases a patient who had previously had an inhalational anaesthetic said afterwards that he preferred this form to the other. The reasons given included the absence of a mask over the face; the speed of induction; the rapid recovery without unpleasantness; and in a few cases some retrograde amnesia as a result of which he stated that he did not even feel the prick of the injecting needle.

The only difficulties encountered were due to the impossibility of gauging beforehand the requisite dose or the period of effective anaesthesia in any given case.



The following facts will illustrate this : the full dose of 10 cc. of solution (15 grains evipan sodium) gave a period of complete anaesthesia lasting from 6 minutes only to 35 minutes. One case was under for 30 minutes on 8 cc. (12 grains), another for 7 minutes on the same dose. Similarly the response to 6 cc. (9 grains) varied from  $4\frac{1}{2}$  to 15 minutes, and 1 patient gave a full 10 minutes on 4 cc. (6 grain) only.

An attempt has been made to account for this variable response but no results of practical value have been achieved. Certainly it appears that the response varies directly with the age of the patient though even this factor is not completely reliable. A study of the sex, type of insanity, height of the blood pressure, weight of the patient, or even the period under which the individual has been treated by medinal or other barbiturates, showed no consistent variations worth recording. In fact the response to the same dose has given different results in the same patient. One man was given 10 cc. (15 grains) on 2 occasions and responded with, first, 25 and then 14 minutes effective anaesthesia (though in either case there was ample time for the operation).

In no case was it necessary to change during the operation to another form of anaesthetic though on 2 occasions a second injection of evipan was administered owing to signs of too early recovery.

A minor difficulty was occasioned by the inability of a demented patient to co-operate so that the usual technique of asking the patient to count has to be abandoned. However, the characteristic yawn that occurs so frequently when just over half the necessary dose has been given has provided a ready means of estimation.

The conclusion we have reached is that the only reliable indication of the necessary dosage is this period of induction. If this is carefully watched it is seldom indeed that the patient shows signs of recovery before the operation has been completed though owing to the uncertainties mentioned, a practice has been made of giving a little more than appears necessary in any case of doubt. Recovery can always be expedited by the administration of  $\text{CO}_2$ .

By way of an experiment a case of acute maniacal frenzy was treated with a full dose of intravenous evipan. He responded well and after waking remained quiet and restful for some hours whereas other sedatives had failed to have any effect. However, the difficulty of administration in such a case renders it impracticable as a routine procedure.

It has become quite clear that the advantages of evipan anaesthesia heavily outweigh the disadvantages and that, properly used, evipan is a very valuable aid to the care of the mental patient.

#### *Dental Department.*

1.—*Report.*—By Mr. GAINSFORD REED, L.D.S., Visiting Dental Surgeon to the Main Hospital.

Regular weekly visits to the main hospital have been maintained during the year, consisting of one half-day each week.

Fifty such visits were made ; also certain patients were seen at my surgery ; 135 patients attended for dental examination and treatment (67 male and 68 female) which is a slight increase on last year. The total number of attendances made by these patients was 802 (384 male and 418 female).

Thirty-eight patients (18 male and 20 female) who had not attended previously or for some years came up for treatment ; 97 patients (49 male and 48 female) came up for treatment again. Sixty of these patients had been seen during 1936 and 37 previous to that year.

In 36 cases (24 male and 12 female) radical treatment was found to be necessary and was carried out.



In 66 cases (34 male and 32 female) it was possible to do conservative work and the patients co-operated in such a way as to allow the work to be carried out successfully.

Except in 3 cases, where special circumstances existed, conservative treatment involving root treatment of the teeth has not been carried out, in accordance with the accepted view that devitalized teeth can be a definite source of infection producing bacterial toxins.

One hundred and three reports, including radiographic reports, were sent in (58 male and 45 female); 13 patients (9 male and 4 female) were given a general anaesthetic for extraction of teeth and of these evipan sodium was used in 7 cases (male).

Dental sepsis has been carefully looked for in every case and definite apical foci of infection has been found in 39·47 per cent. of the new cases. During the year extractions have been done in 60 per cent. of those cases where sepsis proved to be present.

It has been found possible to fit dentures in 55·5 per cent. of the cases where extractions have been done.

Cases where less than three or four extractions were done have not been counted in arriving at a percentage unless dentures were provided.

Cases where extraction were done but dentures not provided until the next year, have not been included for purposes of percentage.

Radiographs have been taken for 12 patients and have proved a valuable help in the diagnosis of focal infection.

The question of the method of extraction has again been carefully considered in close co-operation with the medical staff.

In all cases of extraction by the various methods the sockets have healed with no ill-effects in the mouth as regards the persistence of sepsis and the mouth has become healthy in the normal way in spite of the septic condition that had prevailed previously.

Comparison of the analysis figures of 1937 with those of previous years shows only slight variation except in the number of teeth extracted and this can be accounted for by the fact that extensive radical treatment has been carried out in most of the chronic cases. This has been brought about by the examination at intervals by the medical officers of a certain number of patients who have then been passed on to me for detailed examination and report.

In 4 cases (1 male and 3 female) the work was not brought to a successful conclusion. Two of these patients were non-co-operative owing to their state of health, and the other two left the hospital at such short notice that it did not allow sufficient time for the work to be completed.

It is definitely noted that in many cases the mouths of those patients who have come up for treatment again during 1937 are free from sepsis and that the incidence of caries is less frequent, but inflammatory gum conditions such as acute and chronic gingivitis are still present owing to the fact that many of these patients take no interest in personal appearance and general cleanliness. In such cases the benefit of dental treatment is outstanding from the point of view of general health.

During the year it has been noted that in 2 of the new cases where the patients refused treatment and resented examination, it has been possible with improvement in their mental condition gradually to gain their confidence and co-operation to such an extent that the necessary dental treatment has been carried out with distinctly beneficial results both physically and mentally.

The following is a summary of the work completed throughout the year :—

No. of general anaesthetic cases for teeth extractions, 13; No. of patients who received N<sub>2</sub>O and local anaesthetic for teeth extractions, 27; No. of teeth extracted, 184; No. of fillings done, 99; attendances by patients for scaling, gum treatment, cauterizing and syringing, 251; dressings, 14; new dentures inserted, 26; dentures repaired, re-modelled, etc., 85.



2.—*Report.*—By Mr. F. A. HUSBANDS, L.D.S., Visiting Dental Surgeon at Wantage House.

Forty-seven new cases came under observation during the year, and 25 were re-examined.

In 12 cases the treatment advised was not sanctioned, or the patients left the hospital before it could be done, and the treatment was only partially completed in 14 other cases.

Four cases of impacted wisdom teeth have come under observation, but only one was removed under local anaesthesia. In the other 3, sanction was not given for the operation.

One case of severe gingivitis (Vincent's Angina), occurred which responded very quickly to treatment.

Details of the actual work carried out are appended :—

Fresh examinations, 47; re-examinations, 25; radiographs, 48; scaling and polishing, 441; fillings, 122; dressings, 14; extractions, 54; surgical removals, 2; provisions of dentures, 8; visits *re* dentures, 30; repairs, 4.

#### LXIV.—FROM WONFORD HOUSE HOSPITAL, EXETER.

*General Report.*—By Dr. H. W. EDDISON, D.P.M. Medical Superintendent.

##### *Laboratory Report.*

The following is a summary of the examinations made during the year :—

Urine: routine, 889; urea concentration tests, 15; bacteriological, 15. Blood: total counts, haemaglobin estimation and colour index, 28; differential counts, 26; agglutination tests (various), 17; Sachs Georgi reaction, 16; urea estimation, 17; Wassermann, 1; Van den Bergh, 1; sedimentation rate, 3. Faeces: bacteriological examination, 4. Throat swabs, 8. C.s.f. complete examination including Wassermann test, colloidal gold reaction, Nonne-Apelt reaction, protein content, 1.

##### *Report of a case of Melancholia and Peripheral Neuritis caused by Malnutrition.*

By Dr. B. J. MULLIN, M.C., D.P.M.

E.L., a widow, age 57 years. Admitted October 18th, 1937.

*Previous History.*—She had been a vegetarian from her youth. She refused on principle, to eat the flesh of any animal that had been killed. Three months prior to her admission she became depressed and refused practically all food. She had a delusion that she was spiritually sustained and food was not essential for her existence. She also believed that she was dead and that she was in hell. She was considered suicidal.

*On admission* she was depressed and apprehensive. She had auditory hallucinations, hearing voices telling her she was damned. She was orientated accurately for place and for time. She refused food and required spoon-feeding. She slept badly.

Her physical condition was impaired. Weight, 6 st. 12 lbs. Cardio-vascular system: arteries palpable, blood pressure, systolic 145, diastolic 90, no murmurs. Blood picture: red cells  $3\frac{1}{2}$  millions per c.mm., haemaglobin 70 per cent., colour index 1, white cells 9,000 per c.mm. Blood film, no nucleated red cells, no anisocytosis. Differential count normal.

*Central nervous system.*—Pupils reacted sluggishly to light and convergence, discs normal, no lesion of the cranial nerves, knee jerks and ankle jerks absent, plantar reflexes flexor, biceps, triceps and supinator jerks present and equal abdominal reflexes absent. Postural sense normal in the upper and lower limbs. No error of sensation. C.s.f. showed no abnormality.



She was persuaded to take a liberal diet including meat and marmite. She required spoon-feeding for two weeks after admission. The anaemia was treated with Lextron, a liver and stomach preparation containing iron and vitamin B.

She improved after 3 weeks' treatment and was then co-operating satisfactorily. The depression and apprehension were disappearing and she was sleeping better. She was able to amuse and to occupy herself with normal feminine occupations. She regained considerable insight into her condition and she was able to discuss her symptoms freely. She recovered eventually and left the hospital after 4 months' treatment. Her weight had increased by 14 lbs. There was no change in the physical signs of the central nervous system.

#### LXV.—FROM THE CALDERSTONES CERTIFIED INSTITUTION, WHALLEY.

*Laboratory Report.*—Communicated by the Medical Superintendent.

The following examinations were conducted in the laboratory during the year :—

Faeces : cultural for pathogenic bacteria, 1,147; microscopical for M. t.b., 95. Urines : routine, 296; sugar estimation and test for ketones, 12; test for bile, 9; microscopical of deposit, 86; bacteriological, 22. Blood : Sigma reactions, 203; agglutination reactions, 1,077; erythrocyte counts, 27; erythrocytes—average size, 6; leucocyte counts, 32; reticulocyte counts, 19; differential leucocyte counts, 35; abnormal cells, 36; haemoglobin estimation and colour index, 27; Van den Bergh's reactions, 13; sugar estimations, 5; urea estimations, 7; cultures, 9; miscellaneous, 7. C.S.F. : miscellaneous counts, tests, estimations, 22. Throat and nasal swabs : cultural for C. diphtheriae, etc., 207. Ear swabs : bacteriological, 6. Sputa : microscopical for M. t.b., 90. Milk : analysis, 60; bacteriological, 22. Vaccines : preparation, 2. Miscellaneous : bacteriological, 36; analyses and estimations, 15. Post-mortems, 2.

#### LXVI.—FROM THE CATERHAM (LONDON COUNTY) HOSPITAL.

*General Report.*—By Dr. THOS. LINDSAY, F.R.C.S., D.P.M., Medical Superintendent.

Following promotions in the members of the medical staff, Dr. T. B. JONES is now in charge of the laboratory.

There seems to be little new along the lines of the occupation centres this year and a report on this subject has been omitted.

Summary of tests performed in the pathological laboratory during year :—

Urine : general, 2,248; bacteriological, 4; biochemical, 10. Faeces : bacteriological (for t.b.), 45; (for typhoid and dysentery), 153; occult blood, 11. Throat and ear swabs : bacteriological examination, 21. Blood : haemoglobin estimation, cell counts, differential counts, etc., 51; fragility and sedimentation tests, 4; agglutination reactions, 19; cultures, 3; Van den Bergh reaction, 1. Sputum : examination for t.b., 7. Histological Exam. : Frozen method, 75; paraffin embedding and examined, 260. Miscellaneous : Pus, pleural fluid, gastric contents, 12. C.S.F. : cell counts, 43; protein, 40; Boltz tests, 44; Langes colloidal gold reaction, 52.

Summary of other work performed in the laboratory :—

Radiography, 168; photo-micrography, 28. Photography—general photography of patients, 2,014; pathological specimens, 22; Lantern slides, 21; colour transparencies, 8; X-ray copying, 5; reprinting, 46. Specimens forwarded to Central Pathological Laboratory : Blood of W.R. and parallel tests, 93; C.S.F. for W.R. and parallel tests, 81; sub-cultures and biochemical reactions, 4. Post-mortem examinations, 29.



*Psychological Department.**Mental Tests applied during 1937.*1. *Verbal Tests.*

Stanford Revision of the Binet Simon scale	...	...	...	...	...	...	44
Kent's oral tests	...	...	...	...	...	...	39
Oral analogies	...	...	...	...	...	...	6
Oral absurdities	...	...	...	...	...	...	45
Oral arithmetic (Burt)	...	...	...	...	...	...	10
Oral reasoning (Burt)	...	...	...	...	...	...	7

2. *Performance Tests.*

Drawing tests (Goodenough)	...	...	...	...	...	...	17
Randall's island scale	...	...	...	...	...	...	14
Gesell's normative scale	...	...	...	...	...	...	1
Koh's block design	...	...	...	...	...	...	45
Kent Shakow formboard	...	...	...	...	...	...	32
Danvers Dearborn formboard	...	...	...	...	...	...	53
Dearborn No. 2 formboard...	...	...	...	...	...	...	18
Oakly formboard	...	...	...	...	...	...	9
Porteous Maze	...	...	...	...	...	...	10
Passalong test	...	...	...	...	...	...	21

3. *Temperament and Personality Tests.*

Rorschach test	...	...	...	...	...	...	16
Grip persistence (Howell's)	...	...	...	...	...	...	4

*Research Work.*—By Dr. C. J. C. EARL, F.R.C.P.I., D.P.M.

An investigation of the test approach to temperament and personality factors in the feeble-minded has been continued. The study of certain qualitative aspects of performance test behaviour seems to be of value here, and to give evidence which is clinically valid, as well as raising problems for further research. A paper on the subject has been published during the year. During this investigation the clinical battery was further modified in order to obtain a configurational expression of the quantitative aspects of test behaviour. Certain of the results of this work were reported in a paper read to the Cambridge University Psychological Society.

*Research Work.*—By Dr. T. B. JONES.

In collaboration with Professor Meyer of the Central Pathological Laboratory of the L.C.C. Mental Hospitals, the investigation into the histological appearances of the brains of Mongolian imbeciles is nearly completed and it is hoped that the results will be published shortly.

*Publication.*

"The Performance Test Behaviour of Adult Morons." By Dr. C. J. C. EARL, F.R.C.P.I., D.P.M. *British Journal of Medical Psychology*, 1937, XVII, 1, pp. 78-92.

Performance testing offers a means of clinical approach to the Moron. The personality factors which affect performance test success and failure afford important clinical evidence. Tests for clinical use should be of the serial type, should be self-corrective, and should depend as little as possible on special abilities.

The Moron subjects tested could be classified, on their test behaviour, into 3 groups—the excitable, the integrated, and the inhibited. Evidence of these reaction-types was obtained both in the intellectual and the psychomotor field; in the former from the regularity or otherwise of work value, in the latter from superfluity or insufficiency of movement. Motor behaviour in its relation to neural excitation and muscular tension, affords important



differentiatory evidence between personality types. The evidence which is offered depends on qualitative observation; and so, on the skill and knowledge of the psychologist. Nevertheless the results obtained have been clinically valid and the method affords a useful means of prognosis of success or failure in society.

#### LXVII.—FROM THE DARENTH PARK (LONDON CO.), DARTFORD.

*General Report.*—By D. J. K. C. LAING, D.P.M., Medical Superintendent.

*Research.*—Investigations of bromide metabolism have been continued by Dr. A. H. Wilson.

His investigations show that long continued administration of bromides to epileptic aments rarely causes signs comparable to the bromide intoxication psychosis described by American psychiatrists. This is attributed to the adequate chloride contents of the diet of the patients here.

A survey of the incidence and types of psychosis occurring in feeble-minded patients has been given considerable attention during 1937 and is being continued.

*Routine Laboratory Work.*—During the year 3,683 examinations were made in the laboratory at this institution :—

Biochemical examinations :—Urine : routine chemical, 2,418; urea estimations, 4; chloride estimations, 29; bromide estimations, 36; glucose estimations, 10; bile salts and pigments, 7. Blood : urea estimations, 2; glucose tolerance curves, 3; Van den Bergh tests, 1; bromide, 7; haemoglobin estimations, 76. Gastric contents : fractional test meals, 2; free H.Cl. estimations, 3; occult blood, 1. Faeces : occult blood, 1. Bacteriological examinations :—Urine : cultures for typhoid-dysentery group, 125; general bacteriology 32. Urine : cultures for t.b., 2. Gastric contents : cultures for t.b., 1. Faeces : cultures for typhoid dysentery group, 175. Sputum : cultures for t.b., 90; antiformin method, 71; cultures for general bacteriology, 22. Nose and throat swabs : for diphtheria bacillus, 13; for general bacteriology, 10. Eye, ear, etc. : general bacteriology, 21; cultures for diphtheria bacillus, 12. Blood cultures, 3; Widal agglutinations, 82. Haematology : complete blood-counts, 72; differential, 46; reticulocyte, 3; erythrocyte diameters, 63. Histology : sections, prepared and examined, 230. Post-mortem examinations 15 (65 per cent. of deaths). Specimens examined at Central Laboratory : Blood Wassermann reactions, 216; c.s.f., Lange curves, 3; atypical organisms for examination, 3.

#### LXVIII.—FROM THE FOUNTAIN (LONDON CO.) HOSPITAL.

*General Report.*—By Dr. J. LLOYD, M.R.C.P., D.P.M., Medical Superintendent.

*Infectious Disease.*—The control of infectious disease continues to be a most important problem at this hospital. The decreased incidence of 1936 was not maintained in 1937 during which year the total number of cases was somewhat in excess of the average of previous years. There were, however, only 4 deaths in this connection, 1 from bronchopneumonia following whooping cough, 1 from bronchopneumonia following diphtheria and 2 from lobar pneumonia. Excluding influenza, the number of cases was as follows :—

	<i>Diph.</i>	<i>Scarlet Fever.</i>	<i>Chicken Pox.</i>	<i>Whooping Cough.</i>	<i>Lobar Pneumonia.</i>	<i>Measles.</i>	<i>German Measles.</i>
1937	8	21	71	15	3	0	15
1936	6	2	15	0	5	1	0

To lessen the risk of introduction of infection from outside, the hospital visiting by children is prohibited and adult visitors are required to sign a declaration that they have not been in recent contact with a case. In addition, reconstruction of wards is proceeding to permit segregation of newly admitted patients for 21 days. By this means incubators and carriers of infectious disease will be detected before they have mixed with other patients.



*Diphtheria*.—Permission is sought before Schick testing and immunizing against diphtheria. During 1937 there were 4 refusals to 60 requests for patients and no refusals to 30 requests for staff. Immunization is effected by 3 doses of formol toxoid 0·2, 0·4, and 0·6 cc. (0·15, 0·3 and 0·45 to Mongols on account of occasional severe reactions), and this has never failed to change a Schick + reactor to a negative. Out of 674 patients now resident 34 are Schick +, 636 Schick —, and 4 are of unknown reaction. Out of 135 nurses resident 17 are Schick +, 82 Schick —, and 25 of unknown reaction. Schick + patients and staff and those of unknown reaction are appropriately distributed to diminish risk of infection. Swabs are taken from nose, throat and ear of all new admissions. Out of 60 admissions in 1937 no carriers were found. As far as is known there are no carriers in the hospital at present. It is recognized that there is increased susceptibility to diphtheria during the period of immunization and arrangements are in hand for segregating patients during this period. Our experience confirms that diphtheria may develop in a Schick — patient, but that the disease is then of a mild type and without complications.

*Scarlet Fever*.—All patients and staff are repeatedly Dick-tested subject to consent being obtained. Repeated tests are necessary because there are a large number of positive reactors, but the number continues to decrease on account of naturally acquired immunity, and there are now 84 Dick + patients and 15 Dick + nurses in the hospital; 579 patients and 84 nurses are Dick —. On account of objection to the test the reactions of 11 patients and 36 nurses are unknown. Following several severe reactions attempts at artificial active immunization have been completely discontinued. Passive immunization is also omitted because this would defeat the natural acquisition of active immunity which is reducing our number of Dick + reactors. Such reactors continue to be collected in two wards and the question of a streptococcal carrier being responsible for the increased incidence of scarlet fever during 1937 has been investigated without any conclusive result being obtained.

*Chicken Pox*.—This disease has been prevalent throughout the year. All cases have been mild and none fatal.

*Whooping Cough*.—Fifteen cases occurred during the year with 1 death. The characteristic lymphocytosis was noted in all cases. This phenomenon is being investigated with a view to using it for the diagnosis of whooping cough before the occurrence of the whoop at which time abortion of the disease by means of vaccines may be possible.

*Tuberculosis*.—The situation remains very satisfactory. No fresh cases occurred during 1937 and there is only 1 case (surgical tuberculosis) in the hospital.

*Diarrhoea*.—Epidemics of this disease occurred in 7 wards in 1937. All grades of severity were met with, but on the whole the cases were of a mild nature and there were no fatal ones. Faecal cultures by approved methods and agglutination reactions failed to identify any causative organism. In a solitary case Sonne's bacillus was found. The disease seems to be undoubtedly of an infectious nature for the cases occurred in groups in the various wards without relation to the nature of the diet or type of case. There is nothing, however, to indicate the nature of the infective agent, and a search for pathogenic coliform organisms seems futile.

*Death and Autopsies*.—There were 17 deaths in 1937, the lowest annual total for 5 years. Autopsies were held in 15 cases. Respiratory complaints were the cause of death in 15 cases and epilepsy in 2. Two rare pathological specimens were obtained—a tumour of the heart and a brain showing absence of the corpus callosum.

*Museum*.—Hominit has been found a most successful medium for modelling and further exhibits in this material have been added to the museum. Two



cinematograph films of abnormal movements and gaits have been made during the year and 100 clinical photographs and 6 pathological specimens added to the collection.

*Lectures and Demonstrations.*—These have been given to upwards of 200 undergraduate and post-graduate students during the year. A collection has been made of cases illustrating the characteristics of the various clinical types of mental deficiency, accompanied by corresponding pathological specimens, so that an intensive demonstration of the subject can be completed in 2 hours.

#### *Laboratory Report.*

Urine: routine chemical examination 1,330; microscopical examination, 450; cultures, 89. Blood-counts: R.B.C., 97; leucocytes, 226; differential, 225; Arneth, 4; Platelet, 63; reticulocyte, 13. Blood estimations: haemoglobin, 35; calcium, 4; sedimentation tests, 4. Throat, nose, ear and eye: smears and cultures, 834; subcultures and biochemical reactions, 47. Faeces: cultures, 48; occult blood, 5. Sputa, 10; hair and scales, 80; pleural fluids and pus, 11; gastric contents, 8. 1,062 specimens of urine were examined for phenylpyruvic acid. It was not found in a single case.

*Orthopaedic Clinic.*—This has been in operation for 3 years and results can now be assessed. Satisfactory mental improvement has invariably followed orthopaedic corrections. There have been no dramatic results, but the value of the clinic has been established by the increased accessibility and educability of the patients treated. The visiting orthopaedic surgeon made 12 visits during 1937 and performed 22 operations. Fifty-six patients attended the physiotherapy department on a total of 2,291 occasions; ultra violet light was used in 18 cases.

*Radiography.*—Sixty-eight patients were X-rayed during the year. Abnormalities were found in 18 cases. Pictures of particular interest include a case of chondro-osteo-dystrophy. X-rays were employed for depilation in ringworm in 15 cases.

*Syphilitic Clinic.*—Of the 60 patients admitted in 1937, 3 had a positive blood W.R. Of these 2 had a positive W.R. in the C.S.F. but neither had a paretic Lange curve and neither presented clinical signs of G.P.I. There are now 23 patients with a positive blood W.R. in the hospital, 7 with positive C.S.F. W.R. and 5 with a paretic Lange curve in the C.S.F. Nine syphilitics show physical signs of the disorder; all have been treated with mercury and arsenicals but mental improvement has never been observed. The blood W.R. findings have been reversed in 4 cases, the C.S.F. W.R. reversed in 2 cases and the Lange curve changed in 2 cases (1 to normality). Purpura occurred in 1 case in the course of arsenical therapy.

*Dental Department.*—A thorough dental routine has now been established. Dental hygiene is attended to in every patient after every meal. In the lowest grades the mouth is swabbed out with a solution containing menthol, thymol and methyl salicylate. Tooth brushes are used on all other patients. By this means it is hoped to combat pyorrhoea which is common in the hospital. The dental surgeon attended once weekly in 1937 and treated 310 patients. All new patients are examined and treated on admission and a periodical review is made of all patients in the hospital, who at the present rate will be examined once in every 5 months.

*Occupation Centre.*—At the end of 1937, 220 patients were on the school register. During the year a special class-room was built for patients who may be suitable for a special school and where they can have more individual attention than in the large school hall which has been extended. In 1937 12 patients were so far improved as to leave the hospital and proceed to an institution providing industrial training.



Research.—By Dr. J. N. JACOBSON, D.P.M.

(1) *Observations on the differential counts of white blood corpuscles in whooping cough contacts.*

It was considered possible, in view of the lymphocytosis which, it is definitely established, occurs in the developed case of whooping cough, that some indication of the incubation of this disease in contacts might be shown by changes in the white blood corpuscle count. If diagnosis were possible before the appearance of clinical signs early isolation would control dissemination of the disease and the early exhibition of therapeutic agents might abort the attack.

The first case of whooping cough occurred in a patient in Ward 9. This was immediately quarantined and differential white blood cell counts were subsequently performed every 2 or 3 days on all the patients (22) likely to contract the disease. Seven of these contacts eventually developed whooping cough and all of them showed a definite and steadily increasing relative lymphocytosis during the incubation period, that is, before clinical signs were evident. Those contacts who escaped infection failed to show this change. In the last 5 cases it was possible to forecast the onset of whooping cough purely on the white cell count and they were transferred to the fever hospital on this evidence. It is of interest to note that only in 1 patient was marked leucocytosis a feature of the established infection.

Whooping cough must be regarded as a serious disease which not only has a high mortality rate in early life but often leaves residual chronic lung lesions in older children. Up to the present no remedy has proved of value in affecting its course. It is possible, however, that vaccines or sera administered during the precatarrhal stage would be more efficacious and further investigation is being directed on these lines.

(2) *Blood calcium in Mongols.*

There is a well marked similarity between the muscular hypotonia of rickets and that of Mongolism. In the former disease it has been established that serum calcium is reduced in the "low calcium type." In the latter the hypotonia might be due to cerebellar anomalies, for in Mongolism the cerebellum is comparatively small although no marked neuronic or ganglionic agenesis has been found. The investigation was undertaken to decide whether disorder of calcium metabolism might be the cause of the hypotonia.

In the patients examined readings within the limits of normality were obtained in every case, although always towards the lower limits. It is proposed to check the conclusions by a larger series of cases and by phosphatase estimations.

*A case of thrombocytopenia due to sulphostab.*—By Dr. R. McSWINEY.

The patient, aged 4 years, was undergoing treatment for congenital syphilis, weekly intramuscular injections of sulphostab being given for 8 weeks followed by 4 weeks rest. One such course of treatment (total sulphostab 1.15 gms.) did not give rise to any signs, but after a further 0.64 gms. sulphostab numerous subcutaneous and sub-mucous petechiae and ecchymoses appeared and small quantities of bright blood were passed in the faeces; the capillary resistance test was positive, the bleeding time was prolonged to more than 8 minutes and there were 10,080 platelets per c.mm. The leucocyte count was normal. The platelet count returned to normal after 3 weeks, when the capillary resistance test was negative and bleeding time  $3\frac{1}{4}$  minutes. Sulphostab treatment was re-commenced and 0.46 gms. given; petechiae and ecchymoses then reappeared. The capillary resistance test was positive and the platelets 37,800 per c.mm. After a further 3 weeks the platelet count was 265,100 per c.mm. and another course of treatment begun. When



0.64 gms. sulphostab had been given the platelet count fell to 31,800 per c.mm. and the petechiae again appeared. The number of platelets again rose to normal with the cessation of the arsenic. It seems definite, therefore, that this is a case of thrombocytopenic purpura associated with intolerance of sulphostab.

#### LXIX.—FROM THE HORTHAM COLONY, BRISTOL.

*General Report.*—By Dr. J. F. LYONS, Medical Superintendent.

During the year an investigation of certain intelligence tests has been begun and the questions of Kent's Oral Emergency test are being examined to try to determine whether each question is suitable for the age-group concerned.

Tests for each age-group are being used in place of one test for subjects of all ages. Tests for each age-group tend to prevent the subject from feeling that some tests are beneath his intelligence and others are too difficult for him to attempt. Gesell's norms are being used for persons in the 0 to 4 year mental range, the Dartington Scale for those in the 4 to 8 year range, the revised Cattell Scale I for those in the 8 to 11 year group and the revised Cattell Scale II for those in the 11 to 15 year group.

Little *rapport* is needed with the examiner in these tests and they appear to give a more reliable value for "g" than does the Binet-Simon scale.

#### LXX.—FROM THE LEAVESDEN (LONDON CO.) HOSPITAL.

*General Report.*—Communicated by Dr. R. M. STEWART, F.R.C.P.Ed., D.P.M., Medical Superintendent.

*Pathological and Clinical Investigations.*—By Dr. E. C. DAX.

A substance capable of dispersing the melanosomes of the frog has been shown to be present in the blood and urine of eight adult mental defectives with retinitis pigmentosa. It could not be demonstrated in their lumbar or cisternal cerebro-spinal fluid by the method used. Work upon the origin of this pigmentary degeneration of the retina and upon various cases of cutaneous pigmentation is still proceeding.

*Publication.*

"Mental Observation Wards. Their Work and its Objects." By E. C. DAX and E. U. H. PENTREATH. (*Journal of Mental Science*, July, 1937.)

*Laboratory Statistics.*

Biochemistry: urine analysis, 3,388; blood sugars, ureas, etc., 350; occult blood, 55; c.s.f. examination, 39. Bacteriology: cultures (faeces, urines, bloods, etc.), 1,542; swabs, various, 109; agglutinations, Widal's, etc., 109; demonstrations of organisms, etc., 1,047; demonstrations of worms, ova, etc., 21; other specimens, 46. Haematology: blood grouping, counts, differentials, etc., 1,024. Histology: sections prepared, mounted and examined, 1,218. Museum: Pathological models in wax, specimens mounted, preserved, etc., 32. Photography: photo-micrography, 90; lantern slides, 255; special photography (brains, etc.), 140. Specimens sent to Central Laboratory, 190. Post-mortem examinations, 68.

*Subacute Diffuse Ependymitis.*—By Dr. R. M. STEWART, F.R.C.P.Ed., D.P.M.

It is possible to recognize 3 forms of ependymitis, the acute, the subacute, and the chronic. Of these the first named is a comparatively common condition being in most cases either merely the extension of a purulent leptomeningitis to the ventricles of the brain, or, as in meningococcal meningitis,



part of a septicaemia in which the organisms reach the ventriculo-subarachnoid system not by way of the meninges, but through the choroid plexus. In those instances in which the patients survive the acute phase of their illness this type of ependymitis, by closing the avenues of escape for the cerebro-spinal fluid, may produce internal hydrocephalus as an end result.

Chronic ependymitis is of an altogether different character. For example, the so-called granular ependymitis characteristic of parenchymatous syphilis owes its development more to a subependymal glial overgrowth than to an actual hyperplasia of the ependymal lining and its presence is but one indication of a widespread proliferative gliosis which spares no part of the nervous system.

On the other hand, subacute ependymitis differs from the other two forms in that it is capable of arising as an isolated and primary inflammation of the entire ventricular system, strictly limited to this system, with no concomitant inflammation in the subarachnoid space.

A case of this type has been investigated in the laboratory and it is hoped to publish the results in the near future. The case has the importance of being the first in which organisms have been found.

*Summary.*—A feeble-minded woman, aged 56, succumbed to bacterial endocarditis of 18 months' duration. Examination of the nervous system showed the presence of a subacute ependymitis of the lateral, third and fourth ventricles; associated with this there was a partial stenosis of the aqueduct of Sylvius which had produced a marked degree of internal hydrocephalus. Inflammatory changes were limited to the ependymal and subependymal regions of the brain and except for the presence of a leptomeningitis in the upper cervical region of the cord, the pia-arachnoid was free from evidence of inflammation. Large numbers of micro-organisms were present among inflammatory cells lying on the surface of the ependymal lining of the ventricles. A marked proliferation of the subependymal glia accompanied these changes.

*Pseudohermaphroditism, Adiposity, Polyuria and Hyperglycaemia. An Infundibulo Tuberian Syndrome.*—By Dr. R. M. STEWART, F.R.C.P.Ed., D.P.M.

Although the literature contains numerous reports of adiposo-genital dystrophy, the number of cases in which it has been possible to investigate the tissues after death is comparatively few, and for this reason, it may be of some interest to place on record the clinical history of an instance of this kind.

*History.*—M.C., a boy aged 16 years, was admitted to the Leavesden Hospital on May 4th, 1932. His mother was an unmarried Swiss girl who came to this country in her twenty-fifth year. Nothing was known of the father save that he was of the same nationality. The patient was born in Queen Charlotte's Hospital on June 18th, 1915, and remained in the care of his mother until her return to Switzerland in 1920; subsequently a great-aunt took charge of the defective until his admission to hospital.

During pregnancy the mother enjoyed good health, but is said to have resorted to tight lacing in order to conceal her condition. Born at term, the child was of normal proportions and was breast fed for a year. He was a feeble infant, neglected and undernourished. At the end of 12 months, he could neither stand nor walk and he made no attempt to speak until he was 18 months old. Signs indicating mental deficiency were noted at an early age; by his third year he had learnt to walk but the ordinary language of infancy was not acquired until 2 years later. Habits of cleanliness were not established until his twelfth year. He learnt to dress himself but always required assistance in washing. When 6 years old he was rejected as ineducable at an ordinary elementary school and subsequent efforts to teach him to read and write by private tuition proved fruitless. In his early years he enjoyed good health and was described as being a lively and sociable child.



The genital defect was noted at birth, but obesity was not a noticeable feature until his third year. The increase in weight was progressive and when 5 years old his appearance was grotesque, the excessive obesity and the dwarfism making him "as broad as he was long."

At this age, too, a new symptom, excessive thirst developed, and he drank enormous quantities of milk, water and eau sucre. Micturition became correspondingly frequent, and in the words of his foster-mother "one saw him nearly always in this action."

In 1925, when he was 9 years of age, he began to show marked somnolence which gradually increased until ultimately it became so pronounced that he went to sleep as soon as he sat down, no matter what hour of the day.

*State on admission. May 4th, 1932.*—The patient is an imbecile boy aged  $16\frac{1}{2}$  years; height 4 ft. 5 ins., weight 8 st.  $6\frac{3}{4}$  lb. Circumference of head  $20\frac{3}{4}$  ins. (52.7 cm.). Breadth 14.9 cm. Length 18.1 cm. Cephalic index 83. He is remarkably stunted in growth with a brachycephalic head, long face, short thick neck and rather slender limbs. His appearance is that of a eunuchoid with pronounced feminine characteristics. On the scalp there is an abundant growth of dark curly hair, but on the face there are only fine lanugo hairs; the axillae are hairless. The skin, smooth, soft and velvety, is of a reddish hue on the face and pale elsewhere. The face is large, the eyes rather close together, the nose long and straight, the cheeks fat, the lower jaw large and with a slight double chin. The upper teeth are crowded together, the palate high, the tonsils enlarged and the tongue dry and coated. The pomum adami is not visible on the short fat neck. The voice is high pitched and feminine in character. The contour of the body is most unusual, the shoulders being broad and square, the thorax wide and the abdominal wall covered with a heavy mantle of fat which drags the skin downwards so that it hangs in a heavy apron concealing the pubes and upper thirds of his thighs. There is slight development of the breasts and the weight of subcutaneous fat has displaced downwards the nipples and umbilicus. The upper limbs are slender, feminine in contour and the hands relatively small. The lower limbs are also somewhat slender and free from excess of subcutaneous tissue. There is considerable deformity and eversion of the left leg, due partly to an old standing fracture at the hip joint and partly to a chronic enlargement of the knee joint. There is a moderate degree of genu valgum and pes planus. The feet and toes are broad. The symphysis-vertex measurement exceeds the symphysis-soles height by 3 ins.

*Genitalia.*—There is a well marked mons veneris covered with thick hair of feminine distribution. The penis measures  $\frac{3}{4}$  ins. from symphysis to meatus and has a fully formed glans. About  $1\frac{1}{2}$  ins. behind the penis there is a small rounded eminence with a centrally placed orifice which admits the tip of the little finger. A nodule the size of a small bean which can be felt lying deeply behind the eminence is probably a testicle; the other testicle cannot be felt.

Examination of the thoracic and abdominal viscera reveals no abnormality.

*Roentgenography.*—X-ray films of the cranium show bones of normal density with normal coronal and lambdoid sutures; the sula turcica is, however, small. The bones of the forearms and hands are rather long and slender and the terminal phalanges pointed with feebly developed tufts.

The arrangement of the epiphysis of the radius, ulna and bones of the hand is normal and all are ununited. There is a deformity at the upper end of the left femur owing to the presence of an old fracture through its neck. The subpubic angle is wide, resembling that of a female pelvis.

*Mental State.*—The patient is a low grade imbecile, his mental age, estimated by Burt's modification of the Binet-Simon scale, being  $2\frac{1}{2}$  years. He is shy, retiring, stubborn and at times destructive. All his actions are slowly performed and he needs encouragement before he will answer questions. He knows no letters of the alphabet but can give his name. He feeds and



dresses himself but needs assistance in washing. At times he is faulty in habits. He is quite alert and shows no drowsiness or tendency to fall asleep during the daytime. He asks frequently for drinks.

*Blood Examination.*—Haemoglobin 100 per cent. Red blood corpuscles, 5,300,000. Colour index 0.94. White blood corpuscles, 12,400. Polymorphs, 59 per cent. Eosinophils, 1 per cent. Lymphocytes, 34 per cent. Monocytes, 6 per cent.

*Urine.*—The urine contains sugar, 5–40 mgm. per 100 cc.

The cerebrospinal fluid was examined on 17.9.32. It contained 240 mgm. per 100 c.c. of sugar; no other abnormality was present.

*Progress.*—The patient was put on an ordinary mince diet, which included bread and milk, and no medicinal treatment was prescribed. He continued to drink large quantities of water and on one occasion when he could not get access to a tap was found drinking the contents of a urine bottle. He remained active and alert with no evidence of drowsiness until February 2nd, 1933, when he developed a quinsy. His temperature rose to 103° F. and 5 days later he succumbed to broncho pneumonia.

A post-mortem examination was held 20 hours after death. The body, which was extremely obese, showed a deposit of fat 1 in. in thickness on the anterior abdominal wall. The mammae were represented by discs of areolar tissue and fat 2½ ins. in diameter. The left testicle (weight 3 gm.) was contained in the rudimentary scrotum; the right (2.40 gm.) lay in the inguinal canal and showed little naked eye abnormality.

The brain weighed 1,380 gm.; slight thickening of pia arachnoid of frontal poles; convolutions large and simple. Base of brain normal, no evidence of tumour or meningitis; the infundibulum and tuber cinereum were rather small in proportion to the rest of the brain. Pituitary rather small, especially its anterior lobe. Weight 0.40 gm. Thyroid and parathyroids normal in appearance. A large thymus is present.

Both lungs showed a condition of broncho pneumonia. Heart normal in size, weight 270 gm. Myocardium soft and slightly fatty; valves normal. Large arteries rather hypoplastic.

Liver, weight 1,590 gm., moderately enlarged, congested and slightly fatty.

Kidneys, right 1,259 gm., left 1,309 gm. Foetal lobulation present, otherwise no abnormality.

Pancreas, 65 gm., appearance normal.

Suprarenals, right 5 gm., left 6.5 gm. Cortex and medulla well defined.

The bladder was unusually large and thick walled, the prostate rudimentary and the seminal vesicles each about 1 in. in length.

*Pineal.*—The gland is rather cellular, there being less neuroglial fibres and supporting tissue than in the normal adult gland.

*Pituitary.*—Anterior lobe: eosinophile and chromophile cells appear to be in excess. The basophil cells occupy principally the periphery of the gland. Chromophobe cells are relatively few in number.

*Pars Intermedia.*—Its basophil cells are the seat of a small celled infiltration. A number of vesicles are present, containing colloid which stains pink with eosin.

*Pars Nervosa.*—The posterior lobe is nearly as large as the anterior but shows no structural abnormality.

*Thyroid.*—The epithelium lining the vesicles is of the cubical type and there is a marked degree of colloid storage. There is no fibrosis or evidence of lymphocytic infiltration.

*Thymus.*—The gland is very vascular and lymphocytes appear increased in number. No Hassall's corpuscles are seen.

*Parathyroids.*—Normal in structure.



*Pancreas*.—Sections of the body of the pancreas show a slight degree of fatty infiltration lying between fairly normal cell columns. No islets of Langerhans can be identified; in several sections of the whole block of tissue of more than half a centimetre in thickness, not a single islet can be seen. There is no interlobar fibrosis but an unusual feature is the presence of numerous thick walled channels completely filled with cells containing dark oval shaped nuclei. Tall columnar cells are also present in them lining the vessel walls which are made up of plain muscle fibres. These channels appear to be pancreatic ducts, the lining cells of which have proliferated to such a degree as to block completely the lumen.

*Adrenals*.—The cortex is slightly thicker than normal but no departure from the normal can be seen in its cell columns. Frozen sections examined by polarized light show the presence of lipoid substances in the cells of the zona fasciculata. Broster and Vine's stain gives no selective staining.

*Testicles*.—Both consist of numerous tubules in none of which is there evidence either of cell differentiation or of spermatogenesis. The cells lining the tubules all possess relative large oval or rounded nuclei containing well marked chromatin granules but no evidence of mitosis. The basement membrane of the tubules is slightly thickened. Between the tubules it is possible to find isolated interstitial cells of Leydig, polygonal in shape, the cytoplasm staining with eosin, and their oval nuclei staining darkly by the basophil dye. These interstitial cells are not found in groups, and a comparison with the normal suggests that they are definitely deficient in number.

*Epididymus*.—Apart from slight evidence of fibrosis this structure is normal.

*Prostate*.—Many of its tubular alveoli are filled with spindle-shaped cells apparently derived by proliferation of their lining columnar epithelium.

The liver, kidneys and spleen are normal in structure; sections of lung show changes typical of broncho pneumonia, and the heart is in a rather early stage of fatty degeneration.

*Nervous System*.—Sections of frontal grey matter (Economo's area Fe) stained by cresyl violet showed changes which are not unusual in low grade imbecility—a numerical deficiency of nerve cells with poorly developed processes and irregular alignment; in addition, there was present a fairly marked degree of subpial gliosis but the underlying white matter showed no glial proliferation.

*Hypothalamus*.—For the study of various hypothalamic nuclei, vertical coronal sections were made in 3 planes—through the anterior end of the tuber cinereum, through the oval halves of the mammillary bodies and in a plane immediately posterior to the middle commissure.

A comparison of sections with normal control tissue indicated that certain nuclei had suffered a definite reduction of nerve cells, and that those cells which had survived in such nuclei exhibited degenerative changes of a chronic character. Furthermore, Holzer preparations showed the presence of a fibrous gliosis involving nearly the whole region of tuber cinereum and certain adjacent nuclei. Those most affected were the nucleus supra opticus of Greving, the 3 divisions of the nucleus tuberis lateralis, the nucleus tubero mammillaris, the nucleus paraventricularis and the substantia grisia of the third ventricle. Not all of these cell groups were equally affected. Thus, evidence of cell loss was not marked in the tuberal and paraventricular nuclei. In the nucleus tubero mammillaris the loss of cells was much less, but chronic chromatolytic changes were pronounced. Even under normal conditions their appearance is peculiar—large cell bodies with substance aggregated round the periphery and comparatively small nuclei with indistinct nuclear membranes—but here the picture was one of very marked chromatolysis, the cell outlines being extremely irregular from the presence of ragged cytoplasmic processes



and the nuclei barely discernible and indicated often only by the survival of the nucleolus. The large nerve cells of the basal optic ganglion exhibited these changes in much less degree, some of them having surprisingly little evidence of degeneration. The gliosis likewise showed a remarkable unevenness in extent and intensity. Beneath the ependymal lining of the ventricle there was a moderate degree of gliosis; in the tuber cinereum the gliosis consisted of a delicate felt work of glial fibres, nowhere very marked, but on the other hand the basal optic ganglion and the paraventricular nucleus exhibited a gliosis so intense as to be easily discernible with the naked eye in stained sections, the sharply defined dark staining patches contrasting with the surrounding paler areas. Under a low magnification, the appearance of these nuclei was very striking, the nerve cells lying in dense baskets of glial fibres. The glial fibres seemed to have a special relationship to the blood vessels which they encircled, so as to form very condensed interlacements. The vessels, though dilated, showed no structural abnormalities. It was important to note how selective this gliosis was, one nucleus being heavily involved while its neighbour escaped. Thus Meynerts ganglion was free from glial increase while, as described above, the supra optic nucleus lying ventro medial to it was the seat of a gliosis of intense degree.

In addition to the cell degeneration seen in the hypothalamic nucleus, chronic chromatolytic changes were also found in the subthalamic nucleus; several of the cells of this nucleus were binucleated. There was, however, no accompanying gliosis. The nerve cells of the various thalamic nuclei and in the globus pallidus and putamen were much better presented. Sections stained by the method of Loyez showed a general thinning of myelin sheaths of the nature of a primary degeneration which was very evident when comparison was made with normal control tissue.

*Summary.*—A male child, normal at birth save for the presence of external pseudo-hermaphroditism, acquired in this third year a marked degree of obesity which was followed later by polyuria, polydipsia, excessive somnolence and finally a very marked degree of hyperglycaemia.

In the nervous system degenerative changes of a chronic character were found in the nerve cells of certain of the hypothalamic nuclei together with a marked degree of fibrillary gliosis.

LXXI.—FROM THE ROYAL EASTERN COUNTIES' INSTITUTION, COLCHESTER  
*General Report.*—By Dr. F. DOUGLAS TURNER, Medical Superintendent.

*A.—Schick Testing.*

One hundred and eighty-seven new admissions were Schick tested, and of these 107 proved positive. This is a much higher percentage of positives than usual. They were all immunized.

Until 1937, there had been no case of diphtheria in the Institution since 1926, when the practice of Schick testing and immunizing all patients whose parents gave their consent, was adopted. In 1937, 1 case of diphtheria occurred, and this was a girl whose parents refused to have her tested. It is suggested that this 1 case proves almost more than the absence of any cases the value of protective immunization in a closed community. It is seldom that "the punishment fits the crime" so aptly. Perhaps even better proof is the fact that an exuberance of enthusiasm induced an epidemic of throat swabbing, when 9 diphtheria carriers were discovered. In a protected community, carriers are a certainty, and possibly an advantage by helping to maintain immunity amongst the other patients. The swabbing of throats is probably, however, incompatible with the other method of protecting a community by immunization.



## B.—Measles.

An outbreak of measles occurred between March and the end of June, affecting all but one of the classes in the Central Institution.

The first cases were 16 in the Girls' House, all adults and mild. Seven mild cases occurred in an adult low grade class within 2 days. There were no others.

At Bristol House, there were 25 cases, 16 adults and 9 below 16. Eleven were severe, with haemorrhagic rash and temperature up to 105° F., 5 had broncho pneumonia and of these 2 died. A third death was a patient with congenital pulmonary stenosis who had a mild attack. In this house, 5 of the youngest contacts had injections of 5 cc. convalescent measles serum on the eighth day after contact. Three of these did not develop measles, but 3 weeks after injection, one aged 9 developed a mild attack and another aged 14 developed a severe attack with broncho pneumonia. There were no further complications in those who had received serum.

At Garden House, there were 6 cases, of whom 3 were under 16. Here, the 7 young children in the house had been given 4½ cc. convalescent measles serum on the seventh day after contact and of these, 2 developed mild attacks of measles in from 2 to 3 weeks after injection, while a third developed a severe attack within 4 days with broncho pneumonia.

It was not possible to use convalescent measles serum therapeutically.

Of the 12 cases given a prophylactic dose of serum, 7 did not develop measles, 3 had mild attacks and 2 had severe attacks with broncho pneumonia.

*Embryonin.*—There was a case of measles in one villa at Turner Village. Twenty-five of the remaining 50 boys in the villa were given embryonin (placental extract, human) 1 cc. intramuscularly daily for 5 successive days, and the other 25 boys were kept as controls. There were no reaction to embryonin except slight localized tenderness of short duration at the site of injection, and no fresh cases developed. The limits of age of the boys who had embryonin were from 16 to 40, and their average was 24·7 years.

In view of the non-appearance of secondary cases in either the protected group or the control group, an opinion on the efficiency of embryonin cannot be given.

## C.—Jaundice.

Nine cases of acute infective jaundice have occurred at Garden House at the Central Institution. The first 7 cases, all children occurred in August, 11 weeks after the outbreak of measles in this class and 10 weeks after the injection of convalescent measles serum. All the cases who had had this serum developed some degree of jaundice at this time. Two further cases, both adults occurred 11 weeks after the first outbreak. Three cases died in August.

The infection was one of great severity, the dominant symptoms being vomiting pyrexia, delirium and cholaemic convulsions, followed by jaundice. Five of the cases developed this train of symptoms and of these 3 died. Two patients suffered from vomiting, pyrexia and delirium with mild jaundice; 2 cases had severe jaundice as the most characteristic symptom, following an onset with vomiting and mild pyrexia. Two patients showed a morbilliform rash lasting several hours and apparently toxic in origin.

Treatment consisted in giving plenty of fluids with glucose (either orally or rectally). In the last 2 cases, insulin injections covered by glucose were successful.

Investigations were carried out in the last 6 cases and the following results obtained :—

Van Den Bergh reaction was either direct, positive or biphasic.

Leucocytosis with increase in polymorphonuclear cells.



Negative findings for *Leptospira Ictero-Haemorrhagica* including guinea-pig inoculation.

Sections of liver in 2 of the fatal cases showed extensive acute degeneration of liver cells.

#### D.—*Dysentery.*

An epidemic of diarrhoea with blood and mucus in the stools, occurred early in the year. There were 18 cases in 3 classes. All attacks were very mild, sometimes only a single suspicious stool. Clinically it seemed to be Sonne dysentery, but no organism was found, and agglutination tests against dysentery organisms proved negative. During the year 3 other mild isolated cases occurred, and these again were negative to tests.

#### E.—*Intelligence tests were applied as follows :—*

							Patients.
Binet-Simon tests (Stanford Revision)	...	...	...	...	...	...	460
Porteous Maze tests	...	...	...	...	...	...	332
Healy Pictorial Completion test No. 1	...	...	...	...	...	...	91
Burt's Reasoning tests (Short Series)	...	...	...	...	...	...	71
Koh's Block Design test (Grace Arthur Marking)	...	...	...	...	...	...	150
Passalong test (Cattell's)	...	...	...	...	...	...	16
Merrill Palmer test	...	...	...	...	...	...	33

#### F.—*Research Department.*

Research laboratories and offices have been built during 1937, and were opened for use in December. The cost was £3,900, most of which was supplied by charitable donations, made for the purpose.

The building is 80 ft. long by 40 ft. broad, and consists of a large Pathological and Biochemical Laboratory, a large Histology Laboratory, an Examination Room provided with a separate lavatory, so that patients in bed there can remain under prolonged investigation, 4 separate offices, a Dark Room for Photography, and lavatory accommodation for staff of both sexes. The building is warmed by hot water, heated by an automatic gas boiler. The laboratories have been fitted with all necessary benches, sinks, and cupboards.

The equipment has mostly been provided by a grant of £700 from the Rockefeller Foundation, and £50 from the Darwin Trust and includes a Marchant Electric Calculating Machine.

The staff of the department consists of Dr. Penrose, Director of Research, and Mr. J. C. Raven, Psychologist, whose salaries are paid by the Medical Research Council, a Biochemist and a Laboratory Technician, whose salaries are paid by a grant of £600 a year for 5 years, from the Rockefeller Foundation, and Miss Newlyn, Social Investigator, the greater part of whose salary is paid by the Darwin Trust. There are attached to the department, Dr. T. A. Munro, who has a Beit Senior Memorial Fellowship, and Dr. Nevin, who has a part-time Pinsent-Darwin Studentship.

During the year, preparations have been completed for the publication of a Medical Research Council Special Report, which is to appear early in 1938, under the title of *A Clinical and Genetic Study of 1,280 Cases of Mental Defect*. The conclusions of this exploratory investigation by Miss D. Newlyn and Dr. L. S. Penrose, coincides with the opening of a new laboratory and the research work is continuing on more specialized lines.

The investigation of the family histories of patients of certain types is being continued and special attention is being paid to those conditions whose incidence appears to be associated with birth order or maternal age. Facilities for further studies on the metabolic abnormalities associated with mental defect have been provided in the new department and an intensive study of these peculiarities is planned. There are also facilities now for histological and pathological examinations and these are being carried out in selected cases.



Dr. S. Nevin has continued his study of the neurological conditions associated with mental defect during his tenure of the Pinsent-Darwin Studentship and Dr. T. A. Munro, who holds a Beit Fellowship, has been analysing his material, collected during the last 3 years, concerning the relationship of consanguinity to mental disorders. Dr. Munro has also been working out the genetics of phenylketonuria.

The new series of perceptual intelligence tests, known as the R.E.C.I. Matrix Tests, has been applied, by Mr. J. C. Raven and his co-workers, to a large number of children and adults of normal and abnormal mentalities. Mr. Raven, who is in receipt of a special grant from the Medical Research Council, has been assisted, at different times, by Miss M. Davidson and Mrs. R. Obermeyer. The experience gained by the practical application of the tests has made it possible for a revised series to be designed; this series is carefully graded and can be used to estimate non-verbal educative ability between the mental ages of 3 and 16 years.

The following papers, by members of the department and their collaborators, have been published during the year.

1. "Metabolic Studies in Phenylketonuria." By L. S. Penrose and J. H. Quastel. (*The Biochemical Journal*, XXXI, 266, 1937.)

2. "A Study of Schizophrenic Performance on the Stanford-Binet Scale." By MARSH DAVIDSON. (*British Journal of Medical Psychology*, XVII, 93, 1937.)

3. "Hereditary Sebaceous Cysts." By T. A. MUNRO. (*Journal of Genetics*, XXXV, 61, 1937.)

In this paper a family is described in which 20 persons had sebaceous cysts. The distribution is consistent with the hypothesis of determination by a single dominant Mendelian factor, subject to modification. The occurrence in the family of other simple and malignant tumours is recorded, and it is shown that a genetical relationship may exist between sebaceous cysts and malignant tumours. The possibility of virus infection is considered.

4. "Familial Psychoses associated with Endocrine Disorder." By T. A. MUNRO. (*Journal of Mental Science*, LXXXIII, 707, 1937.)

A sister and brother are described suffering from similar chronic, atypical and uncommon psychoses, characterized by the insidious onset of a progressive lack of emotional drive leading to gross deterioration of behaviour and secondary decay of memory and intellect, lack of insight, and, in one case, delusional formations, associated throughout the course with signs of endocrine malfunction, dysplastic physique, obesity, skin pigmentation, hyperpeisia, hypertrichosis in the woman, diminished sexual activity in the man. High blood cholesterol and increase of red blood-cells were found in the woman. The syndrome may be described as a chronic, progressive, deteriorative behaviour-slump, associated with endocrine malfunction suggestive of hyperactivity of the adrenals or of the anterior pituitary. The parents are first cousins. It is probable that this syndrome is in part determined by a single recessive Mendelian factor.

5. "Familial Myoclonus Epilepsy associated with Deaf-mutism in a Family showing other Psychobiological Abnormalities." By A. D. LATHAM and T. A. MUNRO. (*Annals of Eugenics*, VIII, 166, 1938.)

A family is described, in this paper, in which myoclonus epilepsy associated with congenital deaf-mutism occurs in 5 out of 8 siblings. The parents were healthy and were second cousins. A recessive inheritance is assumed. Two children showing harelip and other gross structural defects, with mental defect in one case, occur among the offspring of another cousin marriage. The mother



of these children had a psychosis, as did 6 of her relatives. The psychoses were mainly of affective type. The possibility of genetical relationship between the psychoses and mental defect with structural abnormalities is discussed. Cases of epilepsy, mental defect, suicide and minor personality abnormalities also occur in the family. All the abnormal individuals in the family are related by blood, but no definite conclusions can be reached as to possible genetical inter-relations.

#### LXXII.—FROM STOKE PARK COLONY, STAPLETON, BRISTOL.

*General Report.*—By Dr. R. J. A. BERRY, F.R.C.S., Director of Medical Services. (On behalf of the medical research and consultant staffs.)

As regards the purely research work carried out in this Institution, there was recently published in the *Bristol Medico-Chirurgical Journal*, 1937, Vol. LIV, No. 205, a full account of the work and publications from which the following is an excerpt.

Bearing in mind the objectives of the Burden Trust, namely an enquiry into the causation and inheritance of mentality whether normal or abnormal, work has been carried out along 3 main lines with a convergent objective :—

1. A complete ascertainment of the mentality of a cross-section of a reputedly mentally normal school population.
2. An analogous study of a known and certified mentally abnormal population.
3. An examination after death of the brains of individuals drawn from the classes just mentioned, with a view to ascertaining wherein, how, and why the brains of the mentally abnormal differ from those of the mentally normal.

As regards the *first* of these lines of investigation Dr. Fraser Roberts has undertaken an ascertainment of a very complete cross-section of the population. Much work has been carried out on this population and upon special portions of it, the general aim being an analysis of as many factors as possible that might be considered to have an influence on the development of mentality. Special attention has been paid to problems of backwardness and mental deficiency. The City of Bath having promised the most generous co-operation, that most suitable area was selected, and it was decided to ascertain and give a mental test to all the children whose homes were within the city boundaries on July 27th, 1934, and whose dates of birth fell between September 1st, 1921, and August 31st, 1925, inclusive. The private schools also co-operated most willingly; and, apart from a small fraction attending schools remote from Bath, the ascertainment and mental testing have been made almost entirely complete. The total number of children included was 3,400. Numerous studies have been and are being made on the entire group, e.g. the distribution of intelligence test scores, the resemblance between brothers and sisters, the relation of intelligence to family size, and, for the great majority of the children, an analysis of mentality in relation to health, maternal age at the time of birth, and several other factors.

Important observations are being made on special sections of this child population. The lowest 8 per cent. of Binet Intelligence Quotients form a special group of 260. A median group of 4 per cent. and a top group of 4 per cent. furnish controls. It will be realized that the value for research purposes of a group that is known to be the lowest 8 per cent. of Binet test results for a complete population is very great. The conclusions will help to interpret the findings in the case of other studies that start with institutional defectives.

For the *second* main objective of the Trust there is a wealth of material at Stoke Park Colony. Even before the Burden Trust came into being the most careful records were being made of the physical, mental, and social conditions of mental defectives from many different parts of England and Wales. Since the inception of the Trust this work has been continued and, as it has included every new admission, there are now available over 1,000 additional consecutive cases. The results to be obtained from these data will not only afford a useful comparison with the normal school population of the previous paragraph, but will furnish additional



information on such problems as the prevalence of illegitimacy and incest, the size of family, the incidence of mongolism and twins, the average longevity, social status and conditions, size of head and brain, physical proportions and the stock from which they spring.

The material accumulated by the Trust under this head alone is so large and has necessarily occupied so much time in its collection that its analysis has only just been begun. Some portion of it is already proving of value for comparison with the normal data.

As regards the *third* and last of the three main lines of the work of the Trust—a macroscopic and microscopic examination of the brains of the normal and defective sections of the population—there had been collected up to March, 1938, the brains of 138 defectives and 100 normals, and this collection is as unique as it is invaluable. All the brains are prepared, preserved, and mounted in such a way as to make all of them available for present and future study by the present or future staffs, and this material is equally available for examination or research by any who care to apply for permission to do so. One observer (Professor S. E. Whitnall, of the University of Bristol) proposes to carry out an investigation on the calcarine and visual areas of normals and defectives. The present staff itself is engaged on an examination of the size and weight of brain, convolutional pattern, embryological errors, and pathological conditions of the defective brain as compared with the normal, whilst an intensive study of the histological cortical differences between defective and normal brains is already in operation. From these several studies it is hoped and confidently expected that much light will be thrown on the basis and genesis of mental deficiency.

There is also to be published this year an illustrative atlas which will depict, photographically, the lateral and medial surfaces of the brains of a consecutive and entirely unselected series of 120 mental defectives, together with an account of their ages, family histories, mental reactions and clinical phenomena during life, for these data are known for all the cases. As each plate will also be accompanied by similar photographic illustrations of the normal brain of individuals of as nearly as possible the like chronological age, it is hoped to make the material available to a much wider circle of trained observers.

#### *Publications of the Trust.*

R. G. Gordon, R. J. A. Berry, and R. M. Norman. "Neurological Abnormalities: their Occurrence and Significance as illustrated by an Examination of 500 Mental Defectives." *Journ. Neurol. and Psychopath.*, 1933, XIV, LIV, 97.

R. J. A. Berry. "The Problem of the Mental Defective." Reprinted from papers read at the Health Congress of the Royal Sanitary Institute held at Bristol in July, 1934.

R. J. A. Berry and R. M. Norman. "Cerebral Structure and Mental Function as illustrated by a study of four defectives' brains." *Journ. Neurol. and Psychopath.*, 1934, XIV, LVI, 289.

R. J. A. Berry. "Some of the Structural Abnormalities presented by the brains of thirty-one certified mental defectives." *Journ. Neurol. and Psychopath.*, 1935, XVI, LXI, 54.

R. M. Norman. "A Case of Juvenile Amaurotic Idiocy." *Journ. Neurol. and Psychopath.*, 1935, XV, LIX, 219.

R. M. Norman. "Bilateral Atrophic Lobar Sclerosis following Thrombosis of the Superior Longitudinal Sinus." *Journ. Neurol. and Psychopath.*, 1936, XVII, LXVI, 135.

J. A. Fraser Roberts, R. M. Norman and Ruth Griffiths. "Studies on a Child Population: I. Definition of the Sample, Method of Ascertainment and Analysis of the Results of a Group Intelligence Test." *Annals of Eugenics*, 1935, VI, 319.

J. A. Fraser Roberts. "Heredity and Mental Deficiency." *British Medical Journal*, 1935, I, 413.

J. A. Fraser Roberts. "Twins." *Eugenics Review*, 1935, XXVII, 25.

R. J. A. Berry. "Brain Size and Mentality." *British Medical Journal*, 1936, II, 62.



R. J. A. Berry. "What to do with the Mental Defective in Private Practice." *Medical Press and Circular*, 1936, CXCI, No. 5089.

J. A. Fraser Roberts and Ruth Griffiths. "Studies on a Child Population: II. Re-tests on the Otis and Stanford-Binet Scales, with a Note on the Use of a Shortened Binet Scale." *Annals of Eugenics*, 1937, VIII, 15.

J. A. Fraser Roberts, R. M. Norman and Ruth Griffiths. "Studies on a Child Population: III. Intelligence and Family Size." *Annals of Eugenics*. In the press.

*In Preparation.*

J. A. Fraser Roberts, R. M. Norman and Ruth Griffiths. "Studies on a Child Population: IV. On the Ascertainment of Low Stanford-Binet Intelligence Quotients."

R. M. Norman. "Some Observations on the Depth and Nerve Cell Content of the supra-granular layers of the Cerebral Cortex in Normal and Mentally Defective Persons."

R. J. A. Berry. "An Atlas of Photographic Illustrations of 120 unselected Defective Brains, with details of the clinical, mental and neurological phenomena presented by each case during life, together with corresponding brains of a like series of normals."

J. A. Fraser Roberts. "Sex-linked microphthalmia sometimes associated with mental deficiency."

R. M. Norman. "An Example of Status Marmoratus of the Corpus Striatum and Cerebral Cortex."

*Diphtheria.*—By Dr. R. M. BATES, F.R.C.S., D.P.M.

An epidemic of a severe form of diphtheria which broke out in December, 1936, continued until May, 1937. Three cases were notified in the second half of the year. The original infection was introduced by a nurse attendant, and in spite of the greatest precautions new cases amongst the staff and the patients occurred at intervals. Malignant diphtheria is a disease which differs from the ordinary forms in many ways—most of which increase the difficulties to be met in combating it. Adults are attacked as well as children, the onset is sudden with high temperature or collapse, and ordinary prophylactic injection (passive immunity) does not completely protect. Membrane on the throat does not appear until relatively late in the disease, and cultures made from the throat swabs taken in the early stages are frequently negative. Very large doses of antitoxin are necessary at the onset of the disease in order to save life. Many patients were seriously ill and were only saved by antitoxin in doses of 50 to 100,000 units. At the same time staff and patients of the Colony were Schick-tested. Positive reactors were passively immunized at once, and active immunization started 14 days later. The same procedure was carried out for contacts at Hanham Hall and the Oak Block on the West Side, when the first case appeared, and there were no further cases in either block. Of the 82 staff Schick-tested 15 (18·3 per cent. gave positive reactions. Primary Schick tests were carried out on 541 patients, of whom 100 (18·5 per cent.) were positive reactors. Two hundred and two of these patients were under the age of 16 and of these 37 (18·3 per cent.) were positive. The agreement of these results suggests that environment plays a large part in the production of immunity to diphtheria. Twenty-three patients developed the disease during 1937, 13 of whom were girls and 10 boys. One patient, an adult female, died. One nurse attendant developed diphtheria 10 days after passive immunization.

During the first 5 months of this year over 1,400 throat swabs were cultured and examined at the Colony laboratory in addition to those sent to Dr. Taylor at the Bristol General Hospital. Dr. Taylor visited the Colony twice weekly during the height of the epidemic, when his help was of the



greatest possible value. Professor Davie of Bristol University also rendered assistance by inoculating guinea-pigs with pure cultures. He was thus able to differentiate pathogenic from non-pathogenic organisms, which closely resemble them.

The outbreak of influenza coincided with the diphtheria epidemic and increased the difficulties of diagnosis. Sixty-three cases of influenza were notified during the year, of whom 42 were girls and 21 boys. Three male patients died from pneumonia following influenza.

The great value of a clinical laboratory attached to the hospital was again evident in 1937. More than 1,000 urines were examined during the year, while throat swabs, sputa and other bacteriological examinations numbered 2,584.

*Publication.*

Ralph Bates, F.R.C.S. "A case of naevoid amentia." *The Lancet*, May 29th, 1937, p. 1282.



## APPENDIX A.

## ENTRIES BY COMMISSIONERS AT COUNTY AND BOROUGH MENTAL HOSPITALS.

## BEDS, HERTS AND HUNTS (THREE COUNTIES) MENTAL HOSPITAL.

*July 7th, 1937.*

During the course of our visit to this hospital we have found that progress has been made in many directions and that the hospital continues to be well maintained under skilled and able administration. We have been much interested in all we have seen and, in the absence on holiday of Dr. McDiarmid, we have been assisted in every way by Dr. Finiefs, the Deputy Medical Superintendent, and helpfully accompanied by the Medical Officers throughout their respective wards.

The plans for the admission hospital and convalescent villas have now been completed and approved. The Medical Superintendent and the Architect are still engaged in preparing a scheme, referred to in the last entry, for the reorganization and modernization of the main buildings. This scheme will be carried out concurrently with that for the central heating of the hospital, and we therefore hope that the latter will not long be delayed so that the plans for the dependent alterations and additions can proceed.

There are many features of the hospital which call for attention and will necessitate alterations and additions, doubtless these are included in the scheme mentioned above. A great deal, however, has already been accomplished since the last visit in October in bringing this hospital up to date.

During the year 1936, according to the statistics placed before us there were 225 direct admissions, of whom approximately 70 per cent. came direct from their own homes. The advantages to be gained from the Mental Treatment Act 1930, continue to be further appreciated in the different areas served by this hospital and it is of interest to record that of the total direct admissions for the year 1936, 34 per cent. and 6 per cent. were voluntary and temporary patients compared with 18 per cent. and 1·4 per cent. respectively for 1935.

Out-patient clinics are held at Bedford weekly, at Luton and Huntingdon fortnightly and at Hitchin monthly. Neither the out-patient clinics nor the hospital have yet the valuable services of social workers.

There appear on the statutory books the names of 1,056 patients (464 men, 592 women) of whom 48 (16 men, 32 women) are voluntary and 7 (3 men, 4 women) are temporary patients. All were in residence with the exception of those who were away on leave or trial. The private patients number 60 of whom 25 belong to the service or ex-service class. There are included amongst those on the statutory books 34 out-county patients.

The weekly maintenance charge per head for home patients is 26s. 10d. and that for the private patients varies between 31s. 6d. and 42s. The average weekly maintenance cost as last ascertained is 26s. 2½d.

Twelve men and 2 women enjoy parole beyond the hospital estate, and 72 men and 21 women parole within the grounds. No ward is administered, due we were told to structural difficulties, on the open door principle except to the corridors.

There is overcrowding at this hospital to the extend of 10 men and 139 women by day and 17 women by night. There is a surplus of day accommodation for 61 men.

The wards of the hospital are generally well decorated, more particularly on the female side, and the day-rooms are clean and well kept and are provided with a good collection of flowers and pot plants. The dormitories, too, are very well kept and the epileptic dormitories on both sides, which have recently been reconstructed and provided with modern sanitary annexes,



have proved most successful and provide a pleasing appearance. Rails and coat hangers have been provided here, whereas the limited space in other parts of the hospital has so far prevented their adoption.

The patients are suitably and well dressed, care having been taken to see that their clothes fitted them. The patients' names, machine embroidered, are used for marking their clothes and some of the ward linen.

Among the many alterations and improvements during the period under review are :—the addition of 2 single rooms to the isolation hospital, ranges of hot and cold water basins in male wards 6 and 9, redecoration of several wards on the female side and the repainting of the central kitchen. The airing court of female ward 4, which hitherto has presented a dull and cheerless appearance, is in the process of being enlarged and improved. The old drying yard of the laundry which adjoins it is to be turfed and the dividing wall demolished.

As mentioned in the last entry we would recommend the installation of running water basins in those wards where patients are nursed in bed. Hot and cold water basins have already been fitted in some clinical rooms. The sanitary annexes we understand are to be modernized under the general scheme of improvements and alterations, but we feel consideration should be given to the earlier provision of additional water closets, certainly in the sanitary annexe of male ward 3. The addition of urinals wherever practicable would add to the facilities in some of the sanitary annexes.

Occupational treatment is well organized and is carried out both in the male and female centres and in the wards themselves. In conjunction with this form of treatment a class is held daily on both sides in physical exercises. We hope it will be found possible to increase the number of classes as we feel there is scope for development.

The patients were particularly contented, well behaved and free from complaints. Two private interviews were given.

The patients have a plentiful supply of books and daily newspapers and their out-door recreation and indoor amusements are well provided for. We would like to suggest the provision of nests of lockers in the wards of the better behaved type of patient where they could put their small private belongings. This would not only add to their comforts but relieve some much needed space in the already rather cramped storage room available in the wards. The provision of modern and additional arm chairs in the day-rooms of some of the chronic patients would be appreciated.

One of us visited the new nurses' home which will be opened this month. The internal design presents many attractive features, both in the domestic and recreational arrangements, which must contribute to the comfort of the 90 members of the female staff to be accommodated; also the surrounding grounds, already partially laid out, will offer great advantages and serenity in the summer months.

With the opening of this home 2 avenues for relieving the overcrowding in the hospital will become available. A large proportion of side rooms in the main building, now occupied by female staff, will be vacated and the present small nurses' home will be evacuated. The future of this latter building is not yet decided. One suggestion is to use it as a villa for quiet more or less dependable female patients; another suggestion is to use it as a treatment centre for 12 to 15 patients of each sex undergoing Insulin therapy or Cardiozol treatment. Of the 2 suggestions we greatly favour the latter after witnessing the somewhat cramped and otherwise inconvenient circumstances in which these patients are being nursed in the admission ward and further than this, the building having been planned as an isolation hospital for both sexes, very little adaptation would be necessary.

During our visit we examined the 4-weekly dietary, saw dinner served in the wards and main dining halls and also considered the method of food conveyance and distribution. On paper, the breakfasts on alternate days appear to us to be rather meagre for working patients unless augmented by a



mid-morning lunch, but the menus for dinners and teas are both varied and generous. The use of small tables seating 4 is practically universal and has proved most convenient. These tables are nicely laid with suitable appointments and flowers. Conveyance of food is by electrically heated trolleys which can be plugged into ward fittings if desired. Plate warming is a weak point; in few instances did we find any efficient method in use in the wards.

During our tour of the wards particular attention was paid to the care of the sick and we are well satisfied with all we saw having regard to the limitation imposed by old buildings. Only 12 male and 27 female patients were actually in bed and very few of these were so confined for mental reasons; a still smaller number were under treatment for acute physical illness.

Following the visit of Dr. Finiefs to Vienna in order to study the technique of Insulin shock therapy, this treatment for schizophrenia was introduced on the male side of the hospital last April. Up to the present 7 patients have completed a course of treatment. The results are encouraging; 3 have been discharged recovered and 1 improved. We saw the second batch of 7 under treatment and were much impressed by the great care and attention devoted to all phases of the hypoglycaemic state, the keenness of the specially trained staff and also by the improvements of the patients as shown by the very full clinical notes kept by Dr. Finiefs in a special manner. Dr. Finiefs is also using Cardiozol alone in some female cases, but the number of these is not yet large enough to form any reliable opinion of its value.

During the year 1936 the mortality rate at the hospital was 7·7 per cent. for males and 8·2 per cent. for females. Since the last visit 9 months ago, 27 men and 53 women have died, practically 50 per cent. of each sex being over 60 years of age. Post-mortem examinations were held in 41 per cent. of the cases and the greater number of deaths resulted from either circulatory (24) or respiratory diseases (19).

There has been a considerable increase in the number of deaths from tuberculosis during the period under review, as compared with that covered by the previous report, but the actual number now remaining under treatment is less by 5 females; there are, however, 3 male and 16 female patients on tuberculosis caution cards.

A mild outbreak of influenza occurred in January of this year affecting 95 patients. This outbreak was reflected to some extent in the deaths from respiratory and circulatory causes. No other infectious illness is recorded.

No case of dysentery has occurred for nearly 2 years and there have not been any further cases of enteric fever since those recorded at the time of the last visit of our colleagues. There are, however, 2 male and 1 female patients on dysentery caution cards and 5 females, including 1 known carrier, who have had enteric fever in the past. All the female patients are kept together in the isolation hospital but the 2 male patients are warded under suitable precautions in the infirmary and epileptic wards respectively. There has been one inquest on an epileptic man dying as a result of a fall on a fire prior to his admission. Accidental injuries (all fractures) have been sustained by 2 men and five women patients in the last 9 months. Five of these were caused by slipping in wards or passages or in airing court and two were due to interference by other patients.

The nursing staff consists of 91 males and 90 females, 11 of each sex being on duty by night. Fifty men and 18 women are certificated or registered as mental nurses, while 13 and 7 respectively have passed the preliminary examination.

#### BERKSHIRE MENTAL HOSPITAL.

*May 11th, 1937.*

Our annual visit to this hospital has been paid yesterday and to-day in an atmosphere of preparation for the Coronation Celebrations. The grounds, which are looking at their best at this time of the year, are charmingly



decorated with bunting and flags and the majority of patients are wearing loyal emblems. A special diet is to be provided tomorrow and there is a long programme of sports and other entertainments.

Generally speaking we have found the patients free from complaints, happy and well-behaved. We have given two private interviews but no action is necessary in either case.

The total number of patients whose names appear on the statutory book is 914; of these 40 females are boarded out at the Hungerford Public Assistance Institution under S.26 of the Lunacy Act, 1890, and 1 female is at present out on leave. There are therefore 873 patients in residence to-day, 383 of them being men and 490 women. Eleven men and 7 women are being treated on a voluntary basis and one of each sex is a temporary patient; the remaining patients are all here under certificates.

It is disappointing to find that during 1936 only 18 voluntary and 4 temporary patients were admitted out of a total of 167 admissions. Lack of knowledge of the provisions of the Mental Treatment Act, 1930, in the area served by this hospital may be responsible. We hope efforts will be made to make the Act more widely known.

There are 31 service or ex-service patients and 1 female is a private patient. The charge for these patients is 23s. per week, the charge for rate-aided patients being 19s. 3d., and the average weekly maintenance cost being only 17s. 11.4d.

There is no deficiency of accommodation except on the male side by night when there is overcrowding of 7 patients.

Parole is given to 26 males and 10 females beyond the estate and to 77 males and 114 females within the grounds. Five wards on the male side and 4 villas and wards on the female side are administered on the open door principle. We were glad to find that wards on each side of the hospital are used as club wards where patients can sit up until 9.30 p.m. This in some measure compensates for the fact that there are a number of wards still without wireless. Patients from these wards are therefore able to enjoy listening in in the Club Wards.

We believe we have seen all the patients in residence and we have visited all parts of the hospital. We were glad to observe the redecoration of F.3 which is now in progress and to find that new lavatory basins had been installed in Wards 3, 5 and 7 on the female side. The wash room in F.1 is much in need of this improvement and we gather its obsolete basins will be replaced when the ward is redecorated. This wash room has to be used for dental treatment for lack of a proper dental room. The sanitary annexes of F.6 and F.7 are very old fashioned and the water closet pans are obsolete. We noted that the upstairs water closets at the new female villa have full length doors, the closets on the ground floor however are furnished with the usual half doors.

Some new machinery is in process of installation in the laundry, consisting of 2 modern hydro-extractors. These should be a most valuable addition. The installation of a steam trouser-press either in the laundry or the tailor's shop would be of value in improving the appearance of the male patients clothing.

We noted in the kitchen the need for adequate protection of the bacon and bread cutting machine. Its condition yesterday was dangerous.

Dinner yesterday consisted of a meat soup, which we tasted and bread and cheese. The soup, although palatable, seemed somewhat thin to us. On examining the diet we found that dinners on all the other days of the 4 weekly rota were on a more generous scale.

The ward garden of M.6 is in need of re-asphalting.

One complaint made to us was that the letters of the patient making the complaint were read by everybody and we noticed that the letter boxes have no locks, nor are they fixtures to the walls of the wards. We think that these two points should be attended to as soon as possible.



The present staff of nurses consists of 8 male and 11 female charge nurses, 43 male and 38 female ordinary nurses, and 8 males and 10 females on night duty. Thirty men and 20 women are certificated and registered as mental nurses, and 11 men and 12 women have passed the preliminary examination.

The general health of the hospital continues to be very good. The mortality rate for 1936 was 9·1 per cent. Since the last visit, 10 months ago, 81 patients have died, 32 males and 49 females. Post-mortem examinations were made in not more than 32 per cent. of these cases. The chief causes of death were heart disease 26, organic brain disease 23, bronchitis 12.

An inquest was held on a patient who escaped from the ward and was found dead next morning in a field adjoining the hospital. Death was due to natural causes.

There have been no cases of fracture of bone or other serious injuries. This record is a tribute to the care and attention bestowed by the nursing staff on their patients.

The hospital has been completely free from all forms of epidemic or zymotic diseases.

Five patients are reported to be suffering from tuberculosis at the present time; there have been 2 deaths from this disease.

No cases of dysentery or severe diarrhoea have been recorded since 1920. In this connexion we note there are no facilities for the examination of excreta at this hospital.

On the first day of our visit there were 118 patients in bed. Some of these cases were in bed for mental reasons, the majority on account of senile infirmities and very few for acute illness. They were carefully nursed and looked after by the staff.

Dr. Read regularly attends the Mental Treatment Clinic at the Royal Berkshire Hospital at Reading.

#### BRECON, RADNOR AND MONTGOMERY (MID-WALES COUNTIES) MENTAL HOSPITAL.

*July 22nd, 1937.*

We have spent a part of yesterday and to-day in visiting this hospital and we have been most interested in all we have seen. The hospital is administered on most progressive lines and every consideration is paid to the welfare of the patients.

The admirable system of occupational treatment has impressed us greatly. In addition to occupation centres on each side, each ward is made a focus of handicraft activity and the success achieved in employing types of patients, considered at some hospitals to be unemployable, is gratifying. The patients are first trained in the centres and then drafted back to the wards to continue the crafts they have been taught and, in time, are moved in into the utilitarian employments of the hospital. It is found that physical drill and ball games are most useful adjuncts to occupation therapy.

Close to the male occupation centre is one of the best central libraries we have seen. There are some 1,900 volumes, the majority being really recent works. The book-binding industry keeps the books in an excellent state of repair.

We have discussed with Dr. Drummond the possibility of a canteen for the patients where small purchases could be made. Canteens are most popular at other hospitals and we know that Dr. Drummond will keep the suggestion in mind.

The wards and ward gardens are well kept. The day-rooms are most comfortably furnished and are well provided with flowers, games, newspapers and books; they have a home-like atmosphere. We have suggested that benches should be provided in the shoe changing rooms. We noticed that the ward gardens on the female side were without water-closet accommodation. The desirability of providing this will, no doubt, be considered.

Much attention is paid here to the clothing of patients and dresses and underclothing on the female side are alike excellent. We would like to see



ordinary ties substituted for the old-fashioned neck-wear provided for the men. We have suggested to Dr. Drummond the possibility of providing rubber-soled shoes for the male and female drill classes.

We believe we have seen all the patients in residence and we have given all those who desired to do so an opportunity of speaking to us. One private interview was given. The patients are quiet and well behaved and appeared to us very contented. Much, in our opinion, is done to make them so.

There are in residence to-day 201 men and 269 women, or a total of 470. Of these 10 are voluntary and 2 are temporary patients. Knowledge of the benefits to be obtained under the provisions of the Mental Treatment Act, 1930, seems, therefore, to be spreading very slowly in the area served by this hospital.

Two men and 6 women are at present out on long leave or on trial, giving a total on the statutory books of 478. Twenty-two of the men (12 in the service and ex-service class) and 10 women rank as private patients and pay from 24s. 9d. to 27s. 9d. per week, the charge for rate-aided patients being 22s. 9d. and the weekly maintenance cost being £1 1s. 6d.

Overcrowding exists by day on both the male and female sides to the extent of 22 and 31 respectively and there is overcrowding on the female side by night by 9 patients.

A gratifyingly large percentage of patients—36 per cent.—enjoy parole. Thirty-six men and 13 women have this privilege outside the estate and 48 men and 77 women within the grounds.

A review of the health records shows that in common with many other Institutions there was an outbreak of influenza in the first three months of the year affecting 31 patients and 4 of the staff. More seriously there were 3 cases of enteric fever, all women, which were attributable to the presence of a carrier, and death ensued in one of these cases. The carrier and 1 of the enteric patients, now recovered, are housed in the isolation hospital. We understand the redecoration of this unit is under consideration and we hope that a little more comfortable day-room furniture will also be provided. In this association, we may mention that analysis of the water supply gave results which were considered to be unsatisfactory and it has been decided by the Committee, after obtaining expert opinion, to proceed with a scheme for providing additional sedimentation tanks, filtration beds and sterilization by approved chemical methods. This plan merely awaits the approval of central authorities before being put in hand and it is to be hoped that there will be little delay in that procedure.

At the time of our visit there were 5 patients suffering from active tuberculosis, and since the last visit 1 man and 1 woman have died from this complaint.

During the period under review deaths numbered 25 and in 72 per cent. of these cases post-mortem examinations were made. The commonest causes of death were cardio-vascular disease (6), pneumonia (4), and other pulmonary diseases including tuberculosis (5). One inquest was held but there was nothing in the verdict calling for comment.

The nursing staff numbers 75—34 male nurses and 41 female. Of these 17 are ranked as charge nurses, 49 as ordinary, and 9 are available for night duty; 57·5 per cent. and 24·3 per cent. of each sex respectively are in possession of the final certificate of the Royal Medico-Psychological Association and 15 per cent. and 17 per cent. respectively have passed the preliminary examination.

#### BUCKS COUNTY MENTAL HOSPITAL.

*March 23rd, 1937.*

The urgent needs of the hospital for increased accommodation and for modernization continue to receive the attention of the Committee and Dr. Skottowe. The scheme foreshadowed by our colleagues in February of last year has now taken definite shape; a programme of building and adaptation



has been drawn up which will ultimately result in an increase of accommodation to 436 males and 553 female patients. The first instalment of this scheme has now reached the stage where the provisional approval of our Board has been obtained to the erection of an admission hospital and nurses' home, and also for the conversion or extension of existing premises to accommodate auxiliary services necessary to this extension. The admission hospital is the only item of this instalment which will have any effect on the ever-increasing overcrowding which is now represented by day, on the male side by 43, on the female side by 77, while by night there is a deficiency of 56 and 66 on the respective sides. It will therefore be seen that the additional beds to be provided by the admission hospital, i.e. 30 male and 40 female, will not materially affect the position since the admission rate is steadily increasing and the admission hospital cannot be ready before 1939. It is therefore hoped that the complete programme comprising various villas for 120 male and 190 female patients will be proceeded with as quickly as possible. In the meanwhile certain structural improvements and other alterations have been made in the hospital. Chief amongst these are the addition of complete sanitary annexes to female wards 10 and 12, and to male wards 9 and 11, the installation of wash basins in the sick wards and the adaptation of existing space, adjacent to male wards 11 and 15, as occupation rooms. A draw plate oven has been provided in the bakery and an additional generating plant added to the power house.

Structural developments are naturally slow but Dr. Skottowe's plans for reorganization are gradually materializing so that as the additions are completed they will function automatically. One of the most important of these plans is the liaison between the mental hospital and the public assistance officials on the one hand and with the general practitioners on the other, through whom 196 of the 217 direct admissions were sent in last year. Dr. Skottowe now visits the public assistance institutions in the County once a month and is available at other times; his services are also available in a private or public consultative capacity at the request of local practitioners with marked effect on the proportion of such cases being admitted under the Mental Treatment Act, 1930; 85 of the 91 voluntary patients and all the 15 temporary patients were admitted direct from their homes in 1936.

Included in the above-mentioned programme of improvements is the provision of a laboratory delayed, we understand, by difficulties associated with the engineering section of the scheme. We regard this department as being of particular importance at the present time since there have been recent outbreaks of dysentery and enteric infections. The diagnosis of these diseases rests almost entirely on bacteriological findings and it is essential that examination of material should be carried out at once, not only from the point of view of treatment but also to obviate the spread of the diseases by carriers. Having in mind the overcrowded condition of the hospital and the subsequent opening of fresh accommodation it is important that every endeavour should be made to stamp out these diseases and we hope the Committee will give special consideration to the early provision of laboratory accommodation.

A valuable advance has been made in occupation therapy by the adaptation of rooms, previously referred to, on the male side. Here various forms of woodwork are undertaken by the type of patient who would be otherwise deteriorating for lack of occupation. On the female side the dining room of Ward 18 is used as an occupation room while the sewing room provides additional facilities in this respect. While it cannot be said that this form of treatment is as yet fully established, we feel that the development is only a matter of time and personnel. We think that one at least of the medical officers would be interested in a visit to a mental hospital where occupational therapy is well established.



Physical exercises have not yet been started on account of staff difficulties. It was therefore gratifying to hear that improved facilities for outdoor exercises are provided in the shape of inter-ward football and cricket matches, and, on the female side, by providing two gardens which will afford increased opportunity for the better classification of patients during exercise periods.

We noticed in some of the ward gardens and immediately adjacent to the buildings a certain amount of discarded foodstuffs, obviously deposited by patients, which is likely to attract vermin; it would be wise for ward staffs to exercise stricter supervision in this direction.

We think that there is evidence that some of the sewage drains may be defective and it would be wise to verify whether this assumption is correct, especially as we understand that the present system of sewage disposal at this hospital may be replaced by a joint scheme including the district of Stone.

The number of patients in residence to-day is 386 men and 434 women, of whom 51 males and 33 females are on a voluntary basis and 1 male and 2 females are temporary patients. Seventy-nine patients are classified as private including 24 service or ex-service men. Eighty-two patients have parole, 20 men and 8 women being allowed to go beyond the estate.

Of the 58 admissions (28 men and 30 women) since the beginning of this year, 25 were voluntary and 2 were temporary patients.

The weekly maintenance charge per head is 22s. 2d. for home patients and from 22s. 2d. to 42s. for private patients. The average weekly cost per head as last ascertained being 22s. 0.166d.

The mortality rate per centum for the year 1936 was 7.1. Since the last visit by our colleagues deaths have numbered 67, of which 37 were of women. Of that total number 36 were over the age of 60. The commonest causes of death were, heart disease 16, pneumonia and broncho-pneumonia 12, tuberculosis (all forms) 10, and kidney diseases 6. Cancer accounted for the death of 3 female patients. Post-mortem examinations were made in 92.5 per cent. of these cases. No inquest was held during the period under review.

Epidemic or zymotic diseases have been fairly prevalent, influenza affecting the hospital population during the first three months of this year, the number of patients affected to date being 29, about equally divided as to the sexes, and 6 of the staff being similarly affected. There have been too 19 cases of lobar or broncho-pneumonia, again about equally divided as to the sexes, deaths from this cause amounting to 12. Pulmonary tuberculosis was diagnosed in 9 instances as well as 3 of a non-pulmonary type. Of the intestinal infections it is to be noted that there were 8 fresh cases of dysentery (4 of each sex) to which must be added 10 cases of severe diarrhoea on the female side. Although no organism was isolated in the latter group it is interesting to note that they were clinically diagnosed and treated as dysentery. The importance of this item of health statistics receives particular attention in a former paragraph.

Fractures of the more serious nature numbered 7: in two instances the accident was due to interference by another patient, the remainder being due purely to accidental causes.

At the time of our visit there were 52 female patients and 38 male confined to bed, i.e. approximately 11 per cent. of the total number in residence. Of these the majority were in bed for treatment of some physical disorder, among them are some cases of influenza (7), dysentery (4) and erysipelas (1); at the moment there also also 10 patients suffering from tuberculosis. We are sure that those patients who are confined to bed are receiving skilled medical attention and we note with pleasure that ward visits are daily made in conjunction with the Medical Superintendent, when special cases are discussed with the respective medical officers and lines of treatment prescribed. The neurological investigation of all cases receives special attention, and we were interested to see those in whom an associated or underlying



organic nervous disorder has been diagnosed. Again we were glad to learn of the importance laid on the psychological investigation and treatment of others, in many of whom psycho-therapeutic treatment is begun towards the end of a period of prolonged narcosis. With special precautions this form of treatment has been found of great value in this hospital in most forms of excitement and anxiety.

The nursing staff numbers 117, 59 male and 58 female nurses. Of these 7 and 8 respectively are ranked as charge nurses, 40 and 38 as ordinary, and 12 of each sex are available for night duty. Thirty of the male nurses are registered or certificated, i.e. 50 per cent. but only 6 of the female nurses, i.e. 10 per cent. as so qualified.

Dr. Skottowe has the assistance of Dr. S. R. Tattersall as his deputy, with Dr. Joan Greener and Dr. J. C. S. Thomas as assistant medical officers. We are much indebted to each of these for the attention given us during our visit.

#### THE CAMBRIDGESHIRE, ISLE OF ELY, AND BOROUGH OF CAMBRIDGE MENTAL HOSPITAL.

*April 9th, 1937.*

During our visit to this hospital, begun two days ago, we have found that steady progress has been made in various directions. Some of the wards on the female side have been re-numbered and re-allocated to ensure better classification. On the male side a similar re-arrangement is to be carried out.

During the year 1936, out of a total of 135 direct admissions 11 only were on a voluntary basis, and 1 only on a temporary. The entries for the last two years have made reference to the little use that has been made of the advantages to be gained from both sections 1 and 5 of the Mental Treatment Act, 1930. The number of voluntary and temporary patients admitted in 1936, while being a slight increase on previous years, is still below what is expected and found in other parts of the country. We discussed this matter with the Medical Superintendent who informed us that he had circularised both the general practitioners and relieving officers in the County as well as in the Borough of Cambridge with reference to the Mental Treatment Act, 1930. In spite of this the results have been poor and some patients have been admitted under certificates who could have been more suitably sent as temporary patients.

There are on the statutory books the names of 732 patients, 287 men and 445 women, all of whom are under certificate with the exception of 3 women on a voluntary basis. There are 35 private patients, 19 of whom belong to the service or ex-service class. Out-county patients number 49. All these patients were in residence excepting 3 who were away on trial.

There is overcrowding on the male side to the extent of a deficiency of accommodation by day for 27 and by night for 2. On the female side there are vacancies for 5 by day and for 15 by night.

No patients are boarded out. We discussed this matter with Dr. Jones, and believe that it would be an advantage if a system were devised whereby some patients could be boarded out in family care.

There is no whole time social worker on the staff of this hospital, such duties being performed by the Secretary of the Local Voluntary Association for Mental Welfare. While we regard this arrangement as useful we realize that it cannot entirely replace the general purposes of a whole time social worker since the latter would be in much closer touch with the patients, their relatives, and their homes. This would result in a more valuable contribution to the ultimate success of treatment and re-habilitation as well as providing a direct means of finding suitable people willing to receive boarded-out patients. We therefore hope that the Committee will see their way to make this appointment.



We were surprised to learn that no out-patient clinics are held in direct connection with this hospital. This fact supplies in part an explanation why there have been so few admissions of voluntary and temporary patients and must of necessity be a handicap to the efficiency of the Mental Health Service.

Seventeen men enjoy parole beyond the hospital estate and 25 men and 17 women parole within the grounds.

The weekly maintenance charge per head for home patients is 21s. 10½d. while that for private patients is 35s. The average weekly maintenance cost as last ascertained is 21s. 5·5d.

The wards of the hospital are well kept and tidy and they have a good supply of pot plants and flowers. There is a good issue of newspapers in each ward but we feel that a larger number of books and more frequent changes than once a month would be appreciated by the patients. Since the last visit the male staff mess-room has been converted into a club-room for the use of the patients belonging to male ward 1. This room is comfortably furnished and is provided with, among other things, a billiards table. We were pleased to learn that a billiards table is shortly to be provided in the male admission ward as well as in some other wards. Wireless has now been fitted in each ward and among the patients' indoor entertainments are a weekly cinema performance and a dance in the recreation hall. We were interested to hear that a "talkie" cinema apparatus has been acquired and will be installed ready for use by next autumn.

We found during our inspection of the laundry that it was in need of redecoration and that additional equipment was required especially as regards the calender since it is inadequate for the amount of work it is called upon to do. The sterilizing plant for infected linen is of an old fashioned type and we doubt if it is still effective.

The ward courts are well kept and have some pleasing and well planted flower beds. In some courts the paths have already been relaid but there are some, especially those of male ward 5 and female ward 1, which are in need of remaking so as to enable rainwater to drain away quickly.

Many alterations and improvements have been carried out since the last visit. These include a supply of hot water to the washbasins in many of the ward ablution rooms, also in certain wards new lavatories and in some cases additional water closets. We noticed that the floor in the sanitary annex of female ward 1 is in a bad state and in need of replacement and that the full doors to the lavatories in female ward 3 opened inwards, a danger which could be obviated by the substitution of half doors. There are plate warmers in sculleries of most wards and we hope that in due course the remaining ward sculleries will be similarly supplied. The provision of a refrigerator in the female admission block kitchen would be an advantage as there is little space or accommodation for perishable foodstuffs, etc.

Miss Ross, an ex-pupil of Dr. Elizabeth Casson, supervises occupational treatment and she takes classes of women in the morning and classes of men in the afternoon in a small and inconvenient room. This handicap will disappear in the summer when the new block consisting of two large rooms together with their sanitary conveniences is completed. Some of the nursing staff receive instruction in handicrafts with a view to their being able to supervise occupations at a later date in their respective wards. At present, classes for women in country dancing are held daily but as yet no classes for men are held in physical exercises.

Provision has been made at the new occupation centre for an outdoor exercise ground and we hope that advantage will be taken to institute classes of physical exercises for the men and that development of country dancing for women will be possible in conjunction with the extended opportunity for occupational treatment.

A four-weekly menu is in vogue consisting of breakfast, dinner, tea and a light supper. The constituents present an ample and well balanced dietary.



The dinner we saw during our visit was well cooked and nicely served. We would however suggest the addition of raw fruit in season two or three times a week.

The night before last we paid a special visit to see the arrangements for night nursing and supervision. In addition to the four male and six female nurses staffing two male and three female observation dormitories, and the staff of two on each side of the admission block, there is a senior nurse on either side paying two-hourly visits to all wards. On the female side an additional nurse relieves from 10 p.m. onwards giving each nurse two breaks off duty totalling 42 minutes so as to bring the working hours to 54 per week. On the male side this relief, which is not necessary from the point of view of nursing duty, is given by the senior male night nurse who is therefore at these periods not available in an emergency until sleeping staff can be roused. We are of opinion that this position on the male side should have further consideration.

The number of patients per night nurse is not higher than 37 except in female dormitory 3 and male dormitory 5 where it is more than double this number. On this account, and also because of the shape of these dormitories we strongly recommend an increase in the night staff, since some of their patients must always be out of direct observation.

We were glad to see that the night staff is neither composed of elderly nurses nor of those with little experience. Dr. Jones does not allow a nurse to be alone on night duty until a considerable period has been spent in a dormitory where two nurses are on duty together.

In all the dormitories we found good ventilation, comfortable heating and the patients quiet, except in one ward where a good many were roused by the increased illumination since, by some oversight, dimmers had not been supplied.

The night report books show a comparatively small number of faulty patients needing attention on any one night and although the number of epileptics may be relatively large the actual number having fits during the night is small.

Night commodes are to be found in most dormitories since access to sanitary annexes would only be possible during the visit of the patrol. In one non-observation dormitory on either side free access is given to the conveniences. Faulty patients are not roused during sleep but when found to be awake advantage is taken of the fact to obviate soiling.

Not all dormitories are equipped with a telephone, but where this is absent bells have been installed. Sleeping staff are available in each dormitory though their services are seldom required.

The mortality rate per centum for 1936 of 7.5 for male and 6.0 for female patients approximates closely to the average for all mental hospitals. Since the last visit of our colleagues 13 months ago 28 male and 31 female patients have died of whom 16 and 18 respectively were over 60 years of age. The cause of death, verified by post-mortem examination in 33 instances, include 3 each from tuberculosis and general paralysis, 24 from heart diseases, 1 from epilepsy and 6 from pneumonia. No inquests were held.

Only one accident is recorded during the period under review; a woman of the regressed but quarrelsome type was found to have a fracture of the left ulnar, the cause however being undiscovered.

Influenza affecting 1 male patient, 5 females and eight of the female nurses occurred in February without fatality. No other infectious disorder is recorded.

There are 3 male and 18 female patients known to have suffered from enteric fever, the last case of which occurred in November, 1935. Fourteen of the female patients are collected together in a separate part of ward 5 but the others, who are of a better type of mentality, and also the male patients are in wards appropriate to their mental condition, where special precautions are taken. All of these patients are investigated every 3 years so far without proving anyone to be a carrier.



There were 27 male and 42 female patients in bed at the time of our visit. Few of these were so confined for physical illness, the majority being senile and a small proportion in bed for mental reasons as new admissions. We found these patients in receipt of good nursing care and attention, though the lack of verandah accommodation elsewhere than at the admission block militates against the advantages to be derived from open air treatment except under good weather conditions and no such provision is made for the tubercular patients of whom there are 4 males and 3 females under treatment to-day.

The sick and infirm wards on either side are as good as structural conditions will allow. A fixed basin with hot and cold water for the use of the staff is needed in both of these wards.

The pathological laboratory is used only for simple routine work all specimens being sent to Cambridge. We regard this as a retrograde step, not only on account of the lost opportunities for research which the wealth of material which a mental hospital presents but also because there are certain investigations which can only be carried out satisfactorily on the spot. Likewise, we deplore the absence of an X-ray apparatus so essential in the treatment of fractures and in the radio-graphic diagnosis of pulmonary tuberculosis.

The nursing staff of 41 male and 56 female nurses comprises :

							Male.	Female.
Charge nurses	...	...	...	...	...	...	6	9
Ordinary nurses	...	...	...	...	...	...	28	36
Night nurses	...	...	...	...	...	...	7	11

of whom 32 males and 21 females are certificated or registered as mental nurses and 4 of each sex have passed the preliminary examination. No female nurses are employed on the male side.

During the course of our visit we inspected the Nurses' Home which accommodates only 30 nurses and endorsed the view expressed in the entry for the year 1935.

We were accompanied by Dr. H. T. Jones, the Medical Superintendent, and by Drs. Thomas and Deighton in their respective divisions to each of whom we wish to express our appreciation of their help and attention.

#### CARMARTHEN, CARDIGAN & PEMBROKE (JOINT COUNTIES) MENTAL HOSPITAL.

May 8th, 1937.

The annual visit to this hospital on behalf of the Board was made by us yesterday. During the day we saw the patients and visited all the dayrooms and dormitories as well as the various departments, such as the kitchen, laundry, and workshops. In the evening we had the pleasure of participating in one of the hospital's Coronation festivities, the "Patients' Dance," which was well attended. Later we visited all the dormitories of the main building.

The Committee, the Medical Superintendent and the staff of this hospital are to be congratulated upon the systematic and energetic manner in which they have, in recent years, set out to reduce the heavy arrears of improvements overdue in many departments. To those of us who have known the hospital for a number of years, the cumulative effect of the improvements effected during the last three years and the promise of even greater achievements in the near future is most gratifying. The most important development in progress at present is the erection of an admission hospital and of a nurses' home. Since our colleagues' visit last September, a new telephone system connecting all parts of the hospital has been installed, also the large gardens have been subdivided by iron railings, thus enabling a better classification of the patients to be made, and small sanitary units with w.c.s. and wash-basins are being erected in each garden. In passing, we would suggest that



more seats should be supplied in these gardens. Steady progress has been made during the period under review in improving the lighting and ventilation of the kitchen and in modernising its equipment. The new house for the head male attendant was completed recently and is now occupied.

Amongst the minor improvements that are being made at present, mention should be made of the provision of an additional water supply, the making of a road to the new buildings, and the levelling of a large piece of ground for a bowling green, and the erection of a shelter in the gardens of ward M.5. We were glad to see that much of the unskilled, as well as some of the skilled work required for these tasks, is undertaken by patients. It is probable that the developments at this hospital will afford much scope during the next few years of similar outdoor work for groups of chronic male patients.

Overcrowding is the most formidable problem the Committee of this hospital has to solve at present. At the time of our visit there were 760 patients (M. 383, F. 377) in residence. The overcrowding on the male side is 97 by day and 33 by night, whilst, on the female side also, there is overcrowding to the extent of 51 by day and 95 by night.

The scarcity of beds on the female side will be materially relieved when the nurses' home is ready for occupation. In this connection we would express the hope that some of the single rooms vacated by the nurses will be made storerooms for patients' clothing, and others into clinical rooms where the medical officers can interview patients individually and give minor surgical treatment and also where the clinical records can be kept. We would, however, urge that the overcrowding should be reduced, without much delay, by the removal of the mental defectives to a colony, or institution, where they can receive the training they need. The local Mental Deficiency Act authorities should be requested by the Committee to make arrangements for the early removal of all the mentally defective children. We would also suggest that the Medical Superintendent should forward to these local authorities a list of the names of the young mentally defective adults in residence at present, who would benefit from training.

On wet days, when the congestion in the dayrooms is felt most acutely, it would be well if patients had more shelters in the gardens where they could sit or walk. Also, the provision of more workrooms by the adaptation of the unused portion of the old laundry would do much to relieve the pressure upon the day room accommodation.

As the day was warm and sunny, most of the patients were out of doors when we visited the dayrooms. A general improvement has been effected in the furniture and decoration of most of these rooms. The arrears of decoration in some of the rooms, sanitary annexes and corridors, suggest it is necessary to give additional staff, temporarily at any rate, to the painters. In some wards we thought better provision should be made for indoor games, such as table tennis and draughts.

A larger and better variety of clothing is now provided for the patients. One very pleasing feature and one which reflects credit upon the staff, is that all underclothing has tabs indicating the individual wearer.

The preparation for the evening function necessitated some departure from the routine arrangements for the service of meals in the dining hall. We saw a dinner, consisting of a nutritious meat stew being served expeditiously in one of the women's wards. Later in the day, a large group of male patients, resident in the hospital, were having tea out of doors, and we were glad to see that fresh fruit was included in this meal. The bread, which we tasted, seemed dense and heavy; this was possibly due to the failure to maintain an even temperature in the bakery during the leavening stage. It is obvious that this department needs to be modernized.

One of the most encouraging features of the hospital is the progress made recently in organizing handicrafts and physical exercises for the patients. Although the occupation officer on the female side had left recently to take up another appointment, the work was proceeding in the normal manner.



About 60 females and 40 male patients attend the handicraft classes each day, either in the morning or afternoon. There is a good variety of occupations taught in the classes but obviously more space is needed for the teaching of so many different handicrafts. In the afternoon we saw a group of much retarded male patients doing physical exercises in the open air. This class is held daily, and there is no doubt that the patients derive much benefit from their exercises.

The chief matter for comment from the medical standpoint is the occurrence of 4 cases (3 male and 1 female) of dysentery last month. No time has been lost in adopting measures to prevent the spread of infection. The ward previously occupied by private patients is now allocated to 11 male patients, who are active cases or carriers of dysentery. Bacteriological examinations were made without delay and these are being continued systematically. All the clothing used by these patients is sterilized in an autoclave at the laundry.

Last September 19 patients presented severe and acute symptoms of gastro-enteritis. The infection was attributed to eating contaminated tinned mutton. Most of the patients recovered in a few days, but two died.

At the time of our visit the comparatively small number of 52 patients (M. 24, F. 28) were being nursed in bed. Although the verandah provision at the hospital is inadequate, most of the bed patients, especially the males, were being nursed in the open-air. The general standard of sick-nursing at this Hospital seems to have improved.

We had an opportunity of discussing with the Medical Superintendent and his medical colleagues the provisions of the recent Dangerous Drugs Act and the steps that should be taken to conform with these present Acts.

The strength of the nursing staff as given in the miscellaneous returns for 1936 is 102 (M. 52, F. 50). Ten of the nurses are allocated for night duty. The proportion of certificated nurses is still below the average figure for all mental hospitals in England and Wales.

Our visit has proved most interesting. Whilst there is still much to be done in certain respects to ensure for the patients the most modern forms of treatment, we were gratified to find that so much headway has been made in recent years.

#### CHESHIRE MENTAL HOSPITALS.—1. UPTON, CHESTER.

*October 14th, 1937.*

There are to-day upon the statutory books of this mental hospital the names of 1,799 patients, in the proportion of 799 men to 1,000 women. Two men and 1 woman are absent upon long leave or trial, leaving in residence 762 men and 974 women as certified patients, 2 of each sex as temporary patients, and 33 men and 23 women as voluntary patients.

Calculated upon the prescribed space allowance, overcrowding exists in this hospital to a grave extent; upon the male side the excess of patients is 104 by day and by night, and upon the female side it is 243 by day and 101 by night. This deficiency of space exists notwithstanding the expedient, which has been adopted in several wards, of utilizing verandahs for the purposes of day and night accommodation.

The Visiting Committee are, we know, fully alive to the acuteness of this problem. But we feel that, in addition to the efforts which are being made to relieve overcrowding by the use of Section 79 of the Lunacy Act, 1890, and by the removal of mental defectives from the hospital where possible, further consideration might be given to the possibility of boarding out patients under the provisions of Section 57. There are, at present, no patients who have been so treated, and we feel that in country districts, at least, the present scale of allowance would be sufficient to induce suitable persons to take patients upon these terms.



It is, of course, in negotiating such matters that the services of a social worker are indispensable. We understand that at present valuable work is being performed by a member of the hospital staff who, in his spare time, visits and reports upon patients' homes, but he, obviously, cannot fulfil many of the duties which the position requires.

Private patients, including 60 of the service or ex-service category, number 145. The weekly charge for their maintenance is 28s., that for home patients being 19s. 3d. The average weekly maintenance cost was last ascertained to be 18s. 074d.

Forty-seven men and 37 women enjoy parole beyond the estate, and 73 men and 14 women within it. Two male wards are open to the grounds, and two female wards to the airing-courts.

Since the last Commissioners' visit a new dairy equipped with sterilizing plant and milk-cooling apparatus has been erected at the Bache Farm, where we also spent some time in inspecting the modern shippens which have been erected for the tuberculin-tested herd at the same place.

We were pleased to find that lavatory basins furnished with a hot and cold water supply had been provided in the dormitories of male and female wards 7 and 12, the last-named being the admission wards in the annexe. A new airing court has been made for male ward 7. Male ward 1 and female wards 4, 5 and 12 have been entirely re-decorated; the female occupation room in the last-named ward presented a particularly bright and pleasing appearance.

One of us saw the new electrically-driven dough mixer in the baker's shop; we think that, so long as patients are working in proximity to this machine, some mechanical safety device to secure its cover whilst in motion should be employed.

We were much impressed by the provision which is being made of a large, airy, and well-lighted room in the main buildings for the purposes of the buffet or canteen. An adjacent room has also been converted for the purposes of the library.

The day-rooms both in the annexe and in the main buildings were well furnished and, except in those cases where redecoration is still to be done, were bright and cheerful and well supplied with reading matter. The dormitories were clean and well kept; we hope that the provision of lockers both for the keeping of clothes and of patients' personal belongings will be continued in all suitable wards. We were shown a type of double locker made in the workshop in the main building ("Allentown") which appeared to us to be well designed for this purpose.

We commend for the consideration of the Committee the provision upon the female side of a hair-dressing room with such facilities as exist in ordinary establishments of this character. We think that this, together with a generous provision of mirrors in the day-rooms and dormitories in suitable wards, would prove of considerable therapeutic value, and would certainly add to the patients' interest in life.

In many female wards two or more baths are available in the bathing-rooms for patients' use. We think that the presence of a screen or curtain between the individual baths would be appreciated by many patients.

The clothing of the patients, both in its quality and its variety, impressed us favourably. We hope, however, that every effort will be made, in proper cases, to encourage rate-aided men and women to wear their own clothing.

There are two small viewing rooms attached to the mortuary which, in our opinion, are quite unsuitable, both in size and appearance, for their present purpose. When it is remembered that no less than 124 deaths took place during 1936, and that 72 have already occurred during the current year, the importance of proper facilities in this respect for the relatives of the deceased will be realized. As we indicated at the time of our visit, we think that proper provision might be made within the existing building.



The use of occupations in the treatment of acute and chronic illness continues to be developed with most gratifying results. We were most interested in hearing of the progress made by individual cases we saw in the admission wards, and in witnessing classes in various handicrafts under the supervision of the occupational trainer, her assistant, and members of the nursing staff who have been specially trained in this work.

In the male and female occupation rooms, which are well adapted for the purpose, we saw physical exercises being carried out. The drill on the female side was done to the accompaniment of a piano played by a female patient; the male class had not this advantage to-day.

Some of the wards in the main building are provided with rooms reserved for occupational treatment, and in "Allentown" we saw 41 male patients engaged in various useful and interesting crafts. Many of these patients were of a type which one so often sees idle and uninterested.

Accommodation for meals and shelter is being provided in the pavilion workshop at the Willows, where to-day we saw a group of the more chronic and demented male patients engaged in work on the land.

The male admission unit is wholly staffed by female nurses. A small number of cases are found to be unsuitable for treatment under these conditions, and are admitted direct to male ward 1 in the main building.

We were favourably impressed with the nursing of the sick patients who were confined to bed. We noticed, however, that the dinner for some of those patients who were to be hand-fed was cold before the nurses had time to attend to the patients, and we feel sure that this will be remedied now that attention has been called to it. The sick wards are much brightened by the colourful decorations and the neat appearance of bed and bedding. The basins that have recently been installed are a great boon to the nursing staff.

We paid special attention to the dietary for the sick and find that it is varied as occasion demands.

The mortality rate for the year ended December 31st, 1936, was 7.1 per cent. Since the last visit, over a period of rather more than fifteen months, there have been 129 deaths (64 males and 65 females). Post-mortem examinations were made in 72 cases.

An inquest was held upon a patient who accidentally set fire to his clothing whilst employed in raking out cinders from a boiler. An inquest was also held in the case of a patient whose death was due to the anæsthetic during an operation. Fifteen patients have sustained injuries. These were, in the majority of cases, fractures due to accidental falls; in two cases injury was due to violence by another patient. Examinations by X-ray were made when indicated.

Thirteen patients have died from tuberculosis. The incidence of this disease during the year 1936 was more than double the mean rate for all mental hospitals, the new cases notified per thousand population being 14.3, and the deaths per thousand 10.3. At the present time 32 patients are reported to be suffering from the various forms of tuberculosis. The high incidence of this disease may be of a temporary nature, but due consideration must be given to the amount of overcrowding to which attention has already been called.

There have been two cases of dysentery, two each of erysipelas and scarlet fever, and one of diphtheria. Frequent bacteriological examinations are made in the laboratory for the detection and prevention of diseases such as dysentery and enteric fever. Eighteen women who have had these diseases in the past are segregated in female ward 7.

Seventy-six patients were returned as having been actively suicidal at the end of last year. Obviously the supervision required is greater in some cases than others and the amount given will depend on the number of staff available. We were doubtful whether the supervision in one of the wards was adequate—not on account of inattention by the staff—but because they were required for other duties partly, no doubt, connected with our



visit. We realize the difficulties and discussed the question of supervision with the medical officers. We feel that if it is considered necessary to keep a patient on a caution card constant supervision should be enforced.

During 1936, 247 visits were paid by patients to the clinic held at the Chester Royal Infirmary. As a result a certain number have attended at this hospital for psycho-therapy treatment.

The nursing staff consists of 10 men and 20 women of charge rank, 61 men and 115 women of ordinary rank, and 9 men and 28 women who are available for night duties. Thirty-one female nurses are employed in the care of male patients. Forty-nine men and 58 women are certificated or registered as mental nurses.

Dr. Grills, who, to our regret, was absent upon leave at the time of our visit, has to assist him Dr. C. L. Copeland as Deputy Medical Superintendent and Drs. C. Holmes, F. J. Gallagher, J. McGlade, A. S. W. Buchanan and S. J. Frewin as assistant medical officers.

#### CHESHIRE MENTAL HOSPITALS—2. PARKSIDE, MACCLESFIELD.

*July 7th, 1937.*

There are to-day on the statutory books of this mental hospital the names of 1,347 patients in the proportion of 589 men to 758 women. One man and 5 women are at present absent upon long leave or trial: no patients are at present boarded out under the provisions of sections 26 or 57 of the Lunacy Act, 1890. Of the 1,341 patients in residence 13 men and 14 women are voluntary, and 1 woman is a temporary patient.

During 1936 admissions upon a voluntary footing numbered approximately one-sixth of the total of direct admissions. For 1937 up to the present date the corresponding proportion is, approximately, one-quarter. But for this period, for 1936 and again for 1935 the number of temporary admissions was 1 in each period respectively. It would appear that notwithstanding the efforts of the Medical Superintendent and his medical staff to ensure that full advantage is taken of section 5 of the Mental Treatment Act by relieving officers and general practitioners, this method of avoiding certification in suitable cases is not yet fully appreciated or comprehended in this area.

Our visit, unfortunately, took place in the absence of the Medical Superintendent. Nevertheless with the assistance of the Deputy Medical Superintendent and of the Assistant Medical Officers we saw quite sufficient to justify us in the conclusion that the treatment and care of patients and the general administration of this hospital have reached a high standard. Where any substantial defect existed the cause was nearly always a structural one, and in many cases was receiving attention.

We have in mind particularly the measures which are being taken to improve and modernize the existing sanitary accommodation in the wards of the main building. The alterations to the sanitary spurs in male wards 3, 5 and 7 are instances of the progress which has been made in this important respect. In many of the older wards and in the Annexe new lavatory basins, washbowls and sinks have been installed. We were particularly glad to observe that a basin with hot and cold running water has now been fixed in the ward itself in male ward 7 where sick patients are nursed. The provision which has there been made for the washing of mackintosh sheets and the cleansing of sanitary utensils is the most modern of its kind and is excellent.

Rose Mount Villa, originally a private dwellinghouse adjoining the hospital grounds has now been occupied by some 12 convalescent female patients. It is, for all practical purposes, a self-contained unit and will accommodate 20 cases.

Important alterations at present in progress include extensions to the main kitchen, and the reorganization with additions of the kitchen plant



A new water main for the length of the building affording new branch services to the wards is under construction.

Plans have been approved for the erection of 6 villas with accommodation for 44 patients in each together with a kitchen block and domestic quarters for their service. A convalescent home for 20 male patients, an extension of the present nurses' home, and 2 units to accommodate 18 voluntary patients each in connection with the out-patient clinic have received similar approval.

The day-rooms were clean and well kept and, within their structural limitations, bright and pleasant. Suitable furniture, flowers and the use of bright colour schemes in wall decoration all assisted to avoid as far as possible the institutional atmosphere.

In most of the ward kitchens plate warmers are being installed. Coat hangers and rails of the type suggested by the Commissioners on previous visits have now been provided in the wards for the storage of patient's clothing. We agree with the remarks contained in previous Commissioners' entries as to the desirability of a steam clothes press. We think that for the male patients' better clothes this would be found no less valuable here than it has been in other mental hospitals.

Generally speaking, at the time at which we saw them (in the course of the ordinary working day) the appearance of the patients was not untidy. The female patients' hair was noticeably well kept, and we have no doubt that upon that side of the hospital the allocation of a special room for hair-dressing purposes would be appreciated.

We have seen, we believe, all the patients in residence and have afforded an opportunity for any that so desired to speak to us. Such complaints as we have received related in nearly every case to a detention which appeared to us to be necessary.

Thirty-three men and 41 women are granted parole beyond the estate, and 70 and 76 respectively within it. Male and female wards 10 are open to the grounds.

Private patients (including 55 service or ex-service patients) number 156. The weekly charge for maintenance is in the case of private patients from 2ls. to 56s.; in the case of home patients it is 18s. 4½d. The average weekly maintenance cost as last ascertained was 18s. 3d. There are 23 patients chargeable to local authorities outside the County.

Upon the female side there is a deficiency of space by day for 26 patients. but an excess by night for 7. On the male side overcrowding exists by night to the extent of 38 patients.

Over 80 per cent. of the patients in this hospital are reported to be employed in some way or other. We had an opportunity of seeing them at work in the new occupation rooms, sewing rooms, laundry and in the wards, and we were much impressed with the general organisation and the smooth running of the scheme. A newly started industry is the making of coloured cement tiles for use in those parts of the hospital that are being renovated.

We also visited the recreation hall to witness several classes in physical exercises. These were ably conducted by a male nurse and by female students.

The social worker visits the homes of new patients and of some of those patients who have been discharged. The value of this work can hardly be over-estimated. She is also in charge of the female occupation centre and physical training. In these she is assisted by female students who, in their turn, receive training at her hands.

In addition to physical training exercises there is much encouragement in the playing of games. The male patients have cricket and football matches with other institutions in addition to those with other wards. The female patients play tennis and net-ball, and we saw ball games in progress in the ward gardens for the more degraded types.



The death rate for the year 1936 was 4·44 per cent. This compares very favourably with the average death rate for all County and Borough Mental Hospitals which was 6·8 per cent.

Since the last visit 50 patients have died, and post-mortem examinations were made in 42 cases. Fifteen deaths were due to heart disease, 8 to general paralysis, and 5 to pneumonia. Inquests were held in the case of a female patient who died from natural causes, and in the case of a male patient who was found dead in bed, the cause of death being asphyxia associated with endocarditis and encephalitis lethargica.

There have been five fractures due to falls in the wards, and one whilst playing football. We were interested to hear that it is proposed to supply an X-ray machine which we feel sure will be of much assistance to the medical staff in the diagnosis and treatment of injuries.

The general health of the patients is very satisfactory, and this, combined with the low death rate, is a certain indication of the satisfactory nature of the general hygiene and nursing arrangements made for the care of the patients.

We paid particular attention to the dietary for the sick, and found it to be varied as far as possible. One of us visited the farm and found that up-to-date methods are employed to ensure a clean milk supply.

At the present time only 3 patients are reported to be suffering from tuberculosis. There have been 2 deaths from this disease. We should like to see the number of spittoons in the wards gradually decreased.

There are no cases of dysentery at present, though 4 have occurred in recent months in male wards 3 and 5. There has been one case of typhoid fever. A continuous search for carriers of these diseases is made in those wards where patients are accommodated who have been infected; all newly admitted patients are also examined.

In addition to these investigations the laboratory undertakes a considerable amount of work for other institutions.

Special treatment for mental disorders includes electrical ultra violet and infra-red ray treatment, radiant heat and massage.

An out-patient clinic has been held at the hospital twice weekly for the past 2 years. During this time 68 patients have been seen. It is proposed to start clinics at Stockport and Crewe.

The nursing staff consists of 6 men and 17 women of charge, and 47 men and 68 women of ordinary rank, together with 12 men and 15 women who are available for night duty. Seventeen female nurses are employed upon the male side. Ninety-three of a total strength of 165 nurses hold the R.M.P.A. Final Certificate or are registered as mental nurses by the General Nursing Council.

Dr. Dove Cormac has to assist him Dr. Crowe as Deputy Medical Superintendent and Drs. Stafford, Littlewood and Crossley as Assistant Medical Officers.

#### CORNWALL MENTAL HOSPITAL.

*November 12th, 1937.*

To-day we completed, on behalf of our Board, the inspection of this mental hospital at which we have spent the last two days.

During our tour we visited Bella Vista, at Liskeard, and Laninval, and the Farm, as well as all parts of the hospital. The fabric of the buildings is generally in good condition, but redecoration is necessary in several of the wards. Ward "E" has been reconstructed on a similar plan to ward "A", with much benefit to the comfort of the patients. The grounds were in good order. The patients, with few exceptions, were quiet and orderly. The women were well dressed, and we noted that fewer men were wearing fustian trousers, and were told that no more trousers of that type were to be supplied.



In going round we paid special attention to the ward store-rooms and in "A" ward especially we found it lumbered up with much unnecessary rubbish. These store-rooms are not too large and for that reason should receive careful attention. We should like to recommend that the contents of each ward store-room should have a thorough overhaul once a month, useless articles being condemned and rubbish destroyed. In "A" ward we advise that the case sheets should be kept in the clinical room in preference to the store-room where we saw them.

The only complaints we had, and these were few, were on account of detention. One patient only asked for a private interview, which we granted.

At our visit there were 1,182 patients (555 males and 627 females) on the statutory books, of whom 11 (4 males and 7 females) are on long leave or trial, leaving 1,171 (551 males and 620 females) in residence, of whom 107 are private patients including 40 service or ex-service and 45 out-County cases. Since the beginning of the year 47 patients (29 males and 18 females) have been discharged as cured.

Of those in residence, 42 (32 males and 10 females) are voluntary, 1 male temporary, and 1,128 (518 males and 610 females) are under certificate.

The accommodation, calculated according to space allowance, shows an excess by day of 45 males and 43 females, and by night 43 males and 40 females.

Parole beyond the estate is granted to 74 men and 30 women. Yesterday we saw 15 men who were going out to the local flower show, who very much appreciated this privilege. On the male side patients in High Buildings, Old Buildings and Isolation Hospital have free admission to their ward gardens, while females in Carew House and Rashleigh House are allowed in their ward gardens, and those at Bella Vista and Laninval to their grounds respectively, and full use is made of this licence. At our visit to Bella Vista we saw the majority of the patients in the garden enjoying the sunshine.

The weekly maintenance rate per head for home patients is 2ls. 7d. and for private cases 25s. to 84s. The average weekly maintenance cost when last ascertained was 22s. 5.8d.

We were pleased to see that some of the recommendations made in the last Commissioners' report had been carried out; but hope that the committee will give favourable consideration to the following points which we think would add to the comfort of the patients. 1. The supply of an electric hot-plate to each ward. At the dinners we saw served on two days the plates were quite cold and a pudding especially on a cold plate is unappetizing. 2. A steam press adds greatly to the appearance of clothing. 3. Teapots might be supplied to the wards in which patients would appreciate them. 4. The viewing room at present looks bare, and its general appearance would be much improved by a few simple decorations. Friends visiting their relatives who have died take particular notice of the mortuary, and we consider it should be made as nice as possible. 5. The addition to the canteen of a few small tables at which patients and their friends could sit down to tea.

Since the last visit there have been 47 cases of dysentery and 2 of enteric fever. Nearly all the dysentery cases were associated with an outbreak starting in the last few days in 1936 and continuing through the first 6 weeks of this year. Though 2 cases ended fatally, the majority were of a mild type.

With a view to enquiring into the cause of this outbreak and with the hope of being of some assistance to the medical staff in their efforts to eradicate the disease, 1 of us visited the hospital during the course of the epidemic. As a result of this visit certain recommendations were made, and we have been glad to find during our rounds of the hospital that these have been carried out. We have found a definite improvement in the general hygiene of the wards and sanitary annexes. Printed instructions as to the procedure to be followed have been posted up: we think they should be framed as some are already illegible. In wards such as "K" on the male side, where 82 difficult patients are accommodated, and the sanitary annexes are out of date, constant vigilance is needed. We noticed that some of the tables on which meals were



served in the male wards required scrubbing. This is done daily in Foster Buildings where the tables we saw were spotless. It is to be remembered that the more deteriorated and defective a group of patients is, the higher should be the standard of hygiene aimed at.

Outside the laundry a large tank has been installed for sterilizing bins. This would be more effective if a protective covering was provided. We do not consider that the laundry arrangements can be really satisfactory until a separate department is made for the foul washer. It is unusual, and unsatisfactory, to take foul linen into the main laundry.

The laundryman who operates the disinfecter has only recently joined the hospital staff. He has not been instructed in the proper handling of infected and disinfected clothing, so that the purpose of a disinfecter was being lost owing to faulty technique.

We were glad to hear that a new water service and sterilizing plant have been installed at the farm. Visits are paid by the County dairy mistress who periodically takes a sample of milk for analysis. Milk pails are also treated with a steam jet at the kitchen.

The work at the laboratory is mainly centred on the search for carriers of dysentery and typhoid groups. The work is exacting and we were very pleased to find that the Committee have appointed a junior laboratory assistant. At the present time 16 carriers of enteric and 36 of dysentery are segregated.

During our visit to the wards we were favourably impressed with the care taken of the patients ill or infirm in bed. We specially enquired into the dietary for the sick and found that suitable extras are provided. We hope care will be taken to insure that meals for spoon-fed patients are not left to get cold while the nurse is attending to other duties.

The mortality rate for 1936 was 8.34 per cent. Since the last visit 103 patients have died (47 males and 56 females).

An inquest was held in the case of a man who died as a result of a wound, self-inflicted, before admission. An inquest was also held in the case of a woman who died from the results of an accidental fall.

Five patients have sustained fractures of a limb as a result of accidental falls, and 1 woman was severely burned whilst attending to a ward fire, owing to her clothing accidentally becoming ignited.

Heart disease, 38 cases, and senile decay, 30, have been chiefly responsible for the deaths. Two patients died from typhoid fever. Six males and 9 females are reported to be suffering from tuberculosis, whilst there have been 4 fatal cases of this disease.

The nursing staff is as follows :—

							Male.	Female.	Total.
Charge	...	...	...	...	...	...	13	18	31
Ordinary	...	...	...	...	...	...	60	47	107
Night	...	...	...	...	...	...	11	10	21

No women are employed on the male side. Of this staff 58 male and 23 female are certificated or registered as mental nurses and 12 male and 7 female have passed the preliminary examination.

An out-patient clinic is held at Truro Infirmary when cases are to be seen in that area, and the Medical Superintendent visits a certain number of patients at their own homes in consultation with their medical attendants.

The Medical Superintendent and his Deputy kindly took us round, and supplied us with much useful information regarding the patients. We were interested to hear that the Committee had given leave to Dr. Dedman to attend a "Refresher course" in London.

#### CUMBERLAND AND WESTMORLAND MENTAL HOSPITAL.

1st September, 1937.

Since the visit of our colleagues nearly 12 months ago, the most important addition, perhaps, to the amenities of the hospital is the installation in all



wards of independently-controlled wireless sets. This form of entertainment is, with the exception of talking pictures (the provision of which is contemplated in the near future), probably more appreciated by patients than any other, and the new sets are undoubtedly affording the greatest pleasure.

Other additions and alterations recently made include the completion of male ward 5 kitchen, the installation of thermostatic valve control of the hot water supply to wash hand basins and the provision of radiators in the dressing room in male ward 6, and the fixing of radiators in the dining hall of female ward 10. A new cricket pavilion has also been built. In active contemplation are the building of a new admission hospital and convalescent villas, and necessary alterations to the laundry.

Although there are now radiators in a few wards, we feel that the central heating of the whole hospital is extremely desirable on every ground, and we hope that before long the Committee will feel able to incur the necessary expenditure.

From the statistics furnished to us, there are at present 847 patients (425 M. and 422 F.) resident in the hospital. This total includes 20 voluntary patients (8 M. and 12 F.) and 3 women who are temporary patients.

During 1936, direct admissions numbered 149 (72 M. and 77 F.) including 33 voluntary (13 M. and 20 F.) and 6 temporary (4 M. and 2 F.) patients. During the same period 73 patients (35 M. and 38 F.) departed or were discharged—24 of these (11 M. and 13 F.) were voluntary, and 4 (1 M. and 3 F.) were temporary patients—while 29 patients of either sex died.

We are sorry to learn that there is no out-patient clinic in operation, and that Dr. Madill, the Medical Superintendent, has not the services of a social worker: these are both matters which call for consideration in the near future, if the best use is to be made of the new unit for early treatment of mental disorders.

Only 1 patient is at present on long leave or trial, though 23 were allowed out during 1936, and there are no patients boarded out under Sections 26 or 57 of the Lunacy Act 1890.

We think that the question of boarding out suitable patients is one which calls for consideration by the Committee, as we should be surprised if among the patients at present detained in the hospital, there were none who were suitable for the greater measure of freedom which boarding out allows.

In 1936, only one patient, a man, was granted a money allowance on discharge.

During our tour of the hospital we found the patients exceptionally quiet, and apparently very contented, while appeals for discharge were markedly few. It was clear to us that the happiest relations exist between the patients and the medical and nursing staffs, and we saw much evidence of that reasonable latitude allowed which so greatly contributes towards a homely and friendly atmosphere in a hospital.

There is a good canteen, where we were glad to see that fresh fruit is included in the stock of goods for sale, but we think that a supply of the more popular toilet articles, including cosmetics, would be much appreciated by the younger female patients.

We should like to suggest too, that, on visiting days, the appearance of the recreation hall, where many patients receive friends, would be much enhanced if a few small circular tables and a supply of chairs could be provided: the rather large rectangular tables and wooden benches at present in use are not calculated to make a good impression on many visitors.

It is interesting to learn that as many as 42 men and 12 women enjoy parole beyond the estate, and that 51 men and 7 women are allowed similar privileges in the hospital grounds: one ward—Male 4—is administered on the open door principle.

Occupation therapy is conducted on very sound lines, and real efforts are made to employ those patients who are most introverted and regressed in type. In every ward some work is being done, and we were particularly glad



yesterday to see some 20 patients from male wards 1 and 2 (both "disturbed" wards) seated in the pleasant ward garden teasing hair, sorting nails, or engaged in some other simple but useful task.

There are daily physical training classes on both sides of the hospital, and in this connection we have discussed with Dr. Madill the possibility of equipping patients with some simple and inexpensive gymnastic costume. This is always helpful and popular, and we consider that the provision of "Plimsoll" shoes is essential.

The ward gardens are now tended by the patients under the supervision and direction of the nursing staff, and they present a very gay and attractive appearance.

Considerable attention has been paid of late to the modernisation of the hospital clothing for women, and the patterns now being gradually issued are modern in design and of pleasing appearance. We are particularly glad to know that in suitable cases individual sets of clothing are provided, and that patients who are able to appreciate them are permitted to retain and wear their own clothes.

The male clothing is satisfactory also, but we feel sure that a supply of flannel trousers to be worn with tweed jackets and pullovers (the latter could no doubt be knitted in the hospital) would be more suitable for many of the younger men than the tweed suits now issued.

We have discussed with Dr. Madill the possibility of thread marking all clothing and linen, instead of marking by means of an inked stamp, a method which is both unsightly and destructive to all fabrics.

From the information given to us, it appears that the dietary has been to some extent improved as respects some of the breakfasts and teas provided. On four mornings in each week however breakfast consists of only bread and margarine and coffee, or of bread, porridge and milk, and on three days there is only bread and margarine, or currant bread, for tea. There is therefore scope still for considerable improvement. No regular issue of fresh fruit is made throughout the year, and we consider that a supply each week is very desirable.

On two days in each week there is no second course for dinner.

Although the weekly maintenance cost has recently slightly increased, it still reaches only the extremely low figure of 18s. 7 $\frac{5}{16}$ d. a head.

The wards in general are very well kept, and we were struck by the generous display of cut flowers and well-grown pot plants everywhere. Much redecoration has been done with pleasing effect, and this work continues. We have discussed with Dr. Madill a number of matters relating to ward hygiene generally, including the supply to each ward of separate clearly marked scrubbing brushes to be used exclusively for the floors of the sanitary annexes, the reconditioning, and eventual replacement, of many of the old canvas beds in present use, the accelerated reconditioning of the mattresses, many of which are very poor indeed, better arrangements for the storage of day clothes at night, and the provision, on the male side, of urinals in those sanitary spurs where space permits. In wards No. 10 on both the male and female sides, a lavatory in a lobby is available for patients using the ward gardens, but we think that the provision of sanitary conveniences in the gardens themselves would be a very real improvement. We regard the outdoor convenience in the garden of female ward 7 as being very unsatisfactory. In the wards where sick patients are nursed, hand basins supplied with hot and cold water are much needed. In none of the wards are plate warmers supplied: the importance of serving hot food before it has become luke-warm or cold is so great that we much hope that it will be found possible to equip every ward with an efficient hot plate before long.

In one female ward drinking glasses are already supplied, and we are glad to learn that further wards are to receive them shortly. We trust also that in wards where they would be appreciated, teapots, which are to be found at any rate in female wards 9 and 10, will also be issued in the not too distant future.



In male ward 7 there is, exceptionally, a long dining table, which would be replaced with advantage by smaller ones.

In each ward there is a fair supply of books which are changed at three-monthly intervals. We feel sure that more frequent changes would be greatly appreciated, and we have no doubt that a central library for the hospital is very much to be desired. Many of the books at present in use need re-binding, and there is much work waiting for any patient or patients who could be taught this simple but useful art. Old illustrated papers and magazines could be bound into volumes, and these we know are always extremely popular with patients.

We found the kitchen in very good order, though yesterday morning there were many more flies in evidence than are usually to be found in a well-conducted hospital kitchen. Probably gauze doors and spraying at intervals with one of the many proprietary fluids now supplied for the purpose would do much to eliminate this nuisance.

Since the last visit a new Crypto mincing and grinding machine has been purchased.

The present nursing staff is as follows :—

	Male.	Female.	Total.
Sub-Officers ... ..	1	2	3
Charge nurses ... ..	8	9	17
Ordinary nurses ... ..	46	49	95
Night nurses ... ..	7	4	11
Certificated or Registered as mental nurses...	25	9	34
Passed preliminary examination only ...	11	21	32

Here, as elsewhere, the recruitment to the nursing staff of suitable young women is beginning to cause concern.

During the year 1936, the death rate at this hospital was 6·7 per cent. for males and 6·8 per cent for females, figures which compare favourably with the average for all mental hospitals during the same period.

Post-mortem examinations were made on as many as 58 of the 60 patients dying during the period under review. Out of this total number of deaths, 28 patients were over 60 years of age. Chief among the causes of death were cardiac and circulatory diseases (26), pneumonia and tuberculosis (8 each), general paralysis (2), and epilepsy (3).

No inquests were necessary.

Four patients were found to have small pressure sores at death. Inquiry into these sores shows that the patients were greatly emaciated, and that a possible factor may have been the uncalendered sheets, which will be eliminated by the installation of a multi-roller calender when the proposed extension to the laundry has been carried out.

An outbreak of influenza at the beginning of this year affected 84 patients and 24 staff without fatality. Six cases of acute diarrhoea among female patients occurred in April, May and July. Nearly all of these were in the admission ward (F.10), but in no instance was the pathologist able to discover any organism of the dysenteric group. There were at the time of our visit only 3 patients on intestinal caution cards, all old dysentery cases : all are warded in F.10, under precautionary conditions which appear satisfactory. In view of the presence of these patients in the same ward in which most of the above-mentioned cases of diarrhoea occurred we have suggested to Dr. Madill that they should be investigated from time to time by a method which will eliminate the inevitable delay caused by sending the specimens away for examination since there is no laboratory convenience at this hospital.

Six cases of active tuberculosis (2 men and 4 women) were receiving suitable open-air treatment at the time of our visit.

Patients who were being nursed in bed appeared to be comfortable, and in their wards we noticed the convenient over-all bed tables, made by patients, and provided with bakelite tops.



The number of patients in bed at the time of our visit was 154, of whom 95 were females; 64 of these were in bed for mental reasons, and 45 were bed-ridden senile patients. We were glad to see the majority of these were enjoying the advantages of the large verandahs, and quite a number had their beds on the grass beyond.

We discussed the treatment of foul laundry with Dr. Madill, and believe this to be satisfactory. We would however prefer a more effective method of sterilising the metal bins, and have suggested the use of a steam jet.

Dr. Madill, the Medical Superintendent, and the members of his medical staff, have given us every assistance throughout our visit, and we desire to make our acknowledgments to them.

#### THE NORTH WALES COUNTIES MENTAL HOSPITAL, DENBIGH.

*June 22nd, 1937.*

In the course of our statutory visit to this hospital during the past two days we have been deeply interested in the progress made towards the provision of adequate accommodation for the patients who have, for some years, been living in overcrowded wards. The need for additional space is, beyond doubt, the most urgent of the questions confronting the Visiting Committee, and the results of their work are apparent to some extent from a comparison of the excess of patients at the date of the last Commissioners' visit with that existing to-day. The excess of male patients, calculated on the prescribed space allowance, was on October 27th, 1936, 121 by day and by night; to-day it is 51 by day and by night. The excess of female patients similarly estimated was then 150 by day and 147 by night; to-day the figures are 139 and 142 respectively.

The advance made upon the male side is, of course, due to the transfer of some 61 patients to Pool Park Hall. This former country mansion has been well adapted to its present use without losing all of the advantages of the appearance and the amenities of a private residence. It has been extremely well decorated and the use of carpets and of suitable furniture in the hall and sitting rooms avoids as far as possible an institutional atmosphere. As it is situated some eight miles from the hospital, it is for all practical purposes a self-contained unit. There is ample opportunity for the employment and occupation of patients within the large grounds.

The reception hospital has proved to be of such value, and to be so appreciated by those who enter it for treatment, that the Committee now propose to enlarge this building. They have under consideration plans for the provision of the following accommodation for patients:—

	Male.	Female.	Total.
Extension of reception hospital ... ..	20	20	40
Additional accommodation for convalescents ...	14	6	20
New sick hospital ... ..	55	55	110
Two parole villas each for 40 female patients ...	—	80	80

We have no doubt that so soon as the problem of overcrowding becomes less acute the Committee will turn their attention to the improvement and modernization of the old fashioned and primitively equipped wards which form the main block of this hospital. We have in mind, especially, the existing sanitary and domestic arrangements for patients and for the nursing staff. We are glad to hear that steps are being taken to enlarge certain of the airing courts and for the provision of new workshops.

We hope that it will be found practicable in the future to establish an occupation centre upon the female side. We observed many female patients, who, while not suitable for the sewing room, would derive great benefit from supervised activities such as rug-making, embroidery, and simpler tasks. We think that the appointment of an officer for the purpose would justify itself not only upon therapeutic grounds, but by reason also of the relief incidentally afforded to members of the nursing staff.



We understand that it is proposed to enlarge the laundry and to instal modern machinery. The need is certainly great. At present both accommodation and machinery are inadequate for the work of the hospital. The collar-ironer was out of order at the time of our visit. Two of the calenders need renewal of, or additions to their fencing, and the lids of the hydro-extractors can be lifted whilst the machines are in motion. The method of dealing with foul and infective linen is satisfactory, but we think that the bins used for its transport from the wards might be disinfected by steam jet. All these matters we discussed with the Medical Superintendent. We hope that among the new machinery installed will be a steam clothes press

We think, too, that in the kitchen a mechanical food mixer and a potato peeling machine would be found most useful. Any necessary mincing of food is at present done in the wards. We consider this undesirable. We observed that dinner plates for the use of patients dining in the main hall were warmed in a hot plate oven in the kitchen, and found that they were at a proper temperature when the meal was served.

The bread which we saw looked, and was, very palatable. The loaves had a good crust. Brown bread is issued weekly; currant and seed bread upon one day in alternate weeks.

We were informed that, consequent upon a recent investigation by the Committee, there has been an increase in the quantity of butter issued for patients' consumption. The daily menu still shows a lack of variety in that certain foods are served upon a fixed day of the week and there is no regular issue of fruit except upon feast days.

In the reception hospital there appeared to be no accommodation for the storage of extra or outdoor clothing of nurses on duty there. We think that the provision of a few lockers would meet this need.

We were glad to observe that the recommendations of our colleagues in their last report relating to the provision of bed jackets for sick patients and of dressing gowns where necessary, have borne some fruit. We saw a number of both of these articles available for use in the male sick ward.

During the course of our visit we gave some attention to the arrangement of the dispensary and the care of drugs in the ward medicine cupboards. We have discussed these matters with the medical staff and have made important suggestions for the better custody and use of drugs in the wards.

Our colleagues at a previous visit made reference to the methods here employed of keeping patients' records. We were glad to observe that the case books are gradually being replaced by clinical records which are kept in the wards.

There are to-day upon the statutory books the names of 1378 patients; the proportion of males to females is 692 to 686. Thirteen of each sex are absent upon long leave, or trial, and 4 men and 2 women are boarded out under the provisions of Sections 26 or 57 of the Lunacy Act, 1890. We hope that it will be found possible in the future to make greater use of boarding out as a means of relieving overcrowding.

Of those in residence 11 men and 12 women are voluntary, and 5 of each sex are temporary patients. During 1936 direct admissions upon a voluntary basis numbered 27, and upon a temporary basis 17. For the first six months of the present year, however, the corresponding figures are 16 and 10 respectively. We think that credit for such use as is made of sections 1 and 5 of the Mental Treatment Act in this area is probably due to the work done in the out-patient clinics held by the Medical Superintendent with assistance from his medical staff. He attends once in every month at Wrexham, Dolgelly, Mold, Colwyn Bay and Bangor.

The Medical Superintendent has to assist him two medical officers and a pathologist, who is in charge of the laboratory, but who also acts as a medical officer during holiday periods.



The two medical officers in charge of wards have, therefore, under their immediate care the 1345 patients who are in residence. They are also required to do the dispensing for the whole hospital and are responsible for the medical care of the staff. It appears to us that the need for additional medical staff is urgent.

The nursing staff consists, at present of 12 male and 10 female charge nurses, 73 male and 69 female ordinary nurses, and 10 male and 8 female night nurses. Thirty-nine men and 25 women are certificated or registered as mental nurses; 26 men and 37 women have passed the preliminary examination of the R.M.P.A.

Private patients, including 60 service or ex-service patients, number 118. There are 10 patients chargeable to local authorities outside the five Counties.

The weekly maintenance charge for private patients is from 21s. to 63s. per week; for home patients it is 18s. 1d. The average weekly maintenance cost, as last ascertained was 18s. 11½d.

Parole is usually enjoyed by 25 men beyond the estate and 75 men within it, but neither privilege is, at present, accorded to any female patient.

Since the last visit the entries in the books of this hospital show that one male and 12 females have suffered from dysentery or from severe diarrhoea. In eight cases an organism of the Flexner group was isolated from the excreta. A thorough examination of the patients has resulted in the discovery of a number of excretors, and the isolation hospital now contains 9 males and 14 females who continue to excrete organisms of the dysenteric or paratyphoid group. It is unfortunate that, while complete isolation of these patients is being carried out, the isolation hospital is too small and inadequately equipped to give them proper care and sleeping accommodation.

The sanitary and bathing arrangements in all the older wards are antiquated and mostly unsatisfactory. The baths have served for many years and are now so old, and so out of good condition, that it does not seem possible to regard them as serviceable.

This is also true of a number of the water closet pans, and it seems to us unlikely that the work done by the medical staff both in the wards and in the laboratory can lead to permanent reduction in the incidence of dysentery while such unsatisfactory sanitary conditions exist. There is also the danger that, so long as (in all the older wards) the staff must use the same water closets as the patients, infection may be carried by them from ward to ward, and they may re-infect those who have been freed after so much trouble and difficulty.

In the male and in the female Isolation sections where all the patients are known excretors of dangerous organisms, there is only one water closet available on each side for both staff and patients. Investigation has shown that the patients in this section infect each other, and in view of the clear evidence of this it is hardly necessary for us to emphasize the need for improvement in the sanitary arrangements. We should not like to see the very careful work which is being done in this hospital in the fight against dysentery rendered abortive from this cause. We were interested to learn that on the male side good results had been obtained from the use of inoculation against organisms of the dysentery group.

Owing to the recent occurrence of scarlet fever and diphtheria in the hospital extensive testing by the Dick and Schick tests have been carried out. It is interesting to find that the positive reactions in both tests exceeded 40 per cent. of those tested.

Excellent progress has been made with the protective inoculation and generally the reactions have been slight.

In January and February of this year there was an epidemic of influenza which attacked 236 patients (91 male and 145 female) and 53 staff (23 male and 30 female). The infection was of a mild character, but three patients of each sex succumbed to it. With so large a number of cases to be dealt with



in this overcrowded hospital it reflects great credit upon the medical and nursing staff that the mortality was so low.

The percentage mortality rate for the year ending December 31st, 1936, was 8.05 (5.2 for males, 10.9 for females). This is rather higher than the average percentage over the same period of 6.8 for all mental hospitals in England and Wales.

Since the last visit there have been 67 deaths; in 46 of these cases post-mortem examinations were held. Six of these patients were over eighty years of age, and 42 were over sixty. The principal causes of death were pneumonia (17), heart disease (15), cancer (9), tuberculosis (7), and dysentery (2).

Three casualties were reported to us; in each case a fracture of the thigh bone was sustained; in each case the patient was over sixty years of age. In two instances the injuries were due to being pushed over by another patient; in the third a fainting attack was responsible.

Three inquests have been held; in two cases death was found to be accidental; the remaining patient, who was upon trial at the time, was found to have committed suicide. All three cases have been fully reported to our Board.

Sixty-six patients (39 males and 27 females) were in bed at the time of our visit, that is to say approximately 5 per cent. of all patients. They were there mainly for physical reasons. All showed evidence of careful medical and nursing attention.

#### DERBY COUNTY MENTAL HOSPITAL.

*October 20th, 1937.*

There were to-day upon the books of this mental hospital the names of 1,227 patients in the proportion of 607 men to 620 women; 5 men and 35 women were away upon long leave or trial. For the 1,187 patients in residence a deficiency of space, calculated upon the prescribed allowance, exists to the extent of 143 patients by day and 156 patients by night.

The problem of overcrowding, which these figures illustrate, has for a long time past received the earnest attention of the Visiting Committee, and we therefore refrain from dealing with this matter at length. But we hope that, in addition to the other measures which are being taken to relieve congestion, the Committee will give further consideration to the question of boarding out suitable patients, under the provisions of section 57 of the Lunacy Act, with relatives or friends who are willing to receive them upon the terms of the payment which the Committee are empowered to make. The task of finding such persons and of making enquiry into their suitability, and that of their homes, for such purposes is, of course, one which can only properly be undertaken by a trained social worker. We understand that, at present, relieving officers perform most valuable work in making, and reporting the result of, domestic enquiries in cases where patients are allowed to leave the hospital upon trial. But for the purposes we mention the special knowledge required and the expenditure of time involved would appear to demand the services of a whole-time officer.

Since the last Commissioners' visit two new convalescent villas, Cedway and Lindway, have been opened, and provide excellent and much-needed accommodation for 24 male and 24 female patients. The provision of two small dayrooms, in addition to the dining room in each, which gives patients a choice of room and of society during their leisure hours, impressed us as being a wise and thoughtful one.

Considerable progress has been made with the two new parole villas, as yet unnamed, which will house 50 male and 50 female patients, and are complete except for furniture. Other improvements include the erection of new engineer's workshops and the rebuilding of the stores, which is now taking



place. One of us visited the new laundry which is in course of construction and appeared to be well laid out and of very good design. The provision of a new main kitchen is under consideration.

The design of the older wards in the main buildings inevitably results in lack of proper storage space for food, clothing and necessary utensils. In a number of wards the daily issue of bread, milk and butter, together with the ward crockery is, of necessity, stored in a cupboard situated in the day-room. In female wards 2, 3, 4 and 5 and male wards 2, 3, 4, 5 and 6 the washing accommodation is situated in the ward kitchen. We mention these matters not by way of criticism of the administration of the hospital with which, indeed, we have no fault to find, but by way of illustrating the limitations imposed by restricted accommodation upon those who are responsible for the patients' well-being.

In the buildings where such disadvantages do not exist, that is to say, in the reception hospital, in the new convalescent villas, in Beech House, and in Gate House, it has been possible to make admirable provision for the comfort and convenience of patients in the form of a variety of small and well-furnished sitting-rooms, comfortable dormitories and pleasant dining-rooms. In the main buildings, also, no effort has been spared, in the female day-rooms, to avoid an institutional atmosphere by the judicious use of pictures and flowers, the generous provision of mirrors and, where possible, of separate tables. The day-rooms of the male wards appear to be adequately provided with reading matter. In one or two instances a table skittle board was available for patients' use, and is, no doubt, appreciated no less than the billiards tables which we also observed.

We discussed with the Medical Superintendent the question of the provision of lockers for patients, both for their clothes and for their private possessions, and were shown a type which is under consideration.

We understand that the adaptation is contemplated of a room in female ward 9, at present used for other purposes, as a hairdressing and manicure room. We are convinced that the provision of such facilities would be of real therapeutic value to many patients in the regaining of self-respect.

The dietary of the patients appeared to us to be adequate and properly varied, and such meals as we saw served confirmed this impression. We think that in the convalescent villas and in the better behaved wards the serving of tea in teapots would be a desirable improvement.

The clothing of the female patients is satisfactory. The male patients were all, of course, clad in working garments at the time of our visit, but in suitable cases their appearance would be improved by the more general wearings, of neckties. We were pleased to hear that steam presses for their garments are to be installed in the new laundry and the new tailor's shop.

Apart from work on the farm and in the gardens, there is a great deal of outside work being done at present in levelling the football field, laying out new bowling greens, and making terraced gardens in connection with the reception hospital and new villas. This work will enhance materially the appearance of the grounds and, in the meantime, provides excellent occupation for a large number of male patients. Unfortunately, the female patients are not so well provided with occupation, and we were struck, in the main building, by the large number of women sitting about in the wards, apparently idle. The introduction of simple handicrafts into the various wards, or the setting aside of a room as a female occupational centre in the main building, is a matter which should receive attention. At the reception hospital there is a well organised occupational class for recent admissions.

The general health of the patients has been good, and the hospital has been fortunate throughout the winter in remaining free from influenza. It has also been free from dysentery and enteric fever. At present 2 men and 2 women are suffering from tuberculosis in active form and, where suitable, are undergoing verandah treatment. All necessary precautions are taken to avoid any spread of infection from these patients by linen or utensils.



Throughout the hospital the dormitories were bright and comfortable with beds and bedding in good condition. No satisfactory solution has yet been found for the problem of the disposal of patients' dayclothes by night, but we understand that this matter is not being overlooked. The leaving open, by night, of sanitary annexes off dormitories has not, so far, been tried here, but we hope that before long in some wards, at least, this practice will be instituted.

We found 26 men and 32 women being nursed in bed. These figures represent only 4·8 per cent. of the total number of patients in residence. All showed evidence of skilled medical attention and kindly nursing care.

We discussed with the Medical Superintendent some modifications of the present arrangements relating to medicine cupboards.

A pathological laboratory has recently been opened at the reception hospital, and a full-time trained assistant is employed there under the direction of the medical staff. The advantage of routine blood and urine examinations on all admissions has been recognised already. A good deal of arrears of such examinations of older patients is being overtaken rapidly, after which it is hoped to extend the work of the laboratory so as to include histological work.

The death rate for the year ending December 31st, 1936, was 7 per cent. (males 7·2 per cent, females 6·8 per cent.). Since the last visit, 11 months ago, there have been 56 deaths (males 30, females 26), followed in 62 per cent. of cases by post-mortem examination. Apart from 1 case, in which death followed on an accidental fall resulting in a fracture, and in which an inquest was held, the causes of death call for no special comment.

During the period under review there have been four casualties, each in the nature of a fracture, and all due to accidental falls.

It is pleasing to note that of the 245 direct admissions to this hospital during the current year no fewer than 42 per cent. came as voluntary patients, while an additional 12 per cent. were admitted upon a temporary basis. These figures speak well for the working of the Mental Treatment Act in this area.

The weekly maintenance charge for home patients is 2ls. 7d., and for private patients is 25s. 4d. The average weekly maintenance cost as last ascertained was 2ls. 1 $\frac{3}{4}$ d.

We are indebted to the Medical Superintendent, Dr. E. L. Hopkins, for much valuable assistance in the course of our visit.

#### DEVON MENTAL HOSPITAL.

*June 16th, 1937.*

We have spent the past 2 days in visiting this hospital. We have been much pleased by all we have seen of the kindly care and skilled medical and nursing treatment enjoyed by the patients. The atmosphere of all the wards is a most homely one and we are confident that this is in some part, at any rate, due to the fact that the Matron is in charge of the wards on both sides of the hospital.

It has been the custom here to have a certain amount of the sick nursing of male patients done by female nurses and there is 1 male ward where this is still the case. Unfortunately the increasing difficulty of obtaining suitable female nurses for the hospital as a whole has caused a restriction of the number employed in the male wards. We hear with concern that there is an actual shortage of at least 6 female nurses on the women's side of the hospital and that great difficulty is being found in obtaining a full complement. This matter is no doubt engaging the attention of the Visiting Committee. The present staff consists of 14 male and 22 female nurses of charge rank, 72 male and 98 female ordinary nurses and 8 male and 25 female nurses on night duty. Only 2 women are now employed in nursing male patients.



Forty-six of the male and 34 of the female nurses are certificated or registered as mental nurses and 9 men and 19 women have passed the preliminary examination. It must be remembered in considering these figures that there are at present 337 more female than male patients.

There are to-day 1,457 patients in residence—560 males and 897 females. Of these 64 males and 79 females are voluntary patients and 5 females are temporary patients and the remainder are all under certificates. Six females are at present out on leave or on trial giving a total of 1,463 on the statutory books. These figures show that during the past 18 months the population of the hospital has increased by 100. The admission rate has been increasing steadily for some years and during 1936 there were 367 direct admissions as well as 46 admissions on transfer. Should the present admission rate be maintained or increased it will not be long before a position of great difficulty is likely to arise. Already it is frequently almost impossible to move a patient from one ward to another without making a number of other changes. Upon the figures submitted to us there is an actual shortage of accommodation by day on the female side for 33 patients and on the same side the night accommodation is completely filled.

We have discussed this situation with Dr. Bainbridge and we were glad to hear that the Committee are likely to give it consideration. The need for an admission hospital has, we gather, already been raised.

There are at present 70 male (43 in the service or ex-service group) and 75 female private patients and these pay rates of from 25s. to 4 guineas a week, the weekly charge for rate-aided patients being 21s. 7d. and the average weekly maintenance cost being 21s. 3·7d.

Six male and 7 female wards and villas are administered on the open door principle. Thirty-four males and 33 females enjoy parole beyond the estate and 44 males and 28 females have parole within the grounds.

We believe we have seen all the patients in residence and we have given two private interviews. We have found nearly all the patients quiet in demeanour and happy and contented in manner. Many spoke with appreciation of the kindness of the doctors and nursing staff.

The beautiful weather is perhaps responsible for the very large numbers out of doors yesterday and to-day and we were glad to observe dinner being served in the open in a number of ward gardens. The wards on the whole are most comfortably furnished and have many homely touches. They are well supplied with flowers, books and games. There are, however, a number of wards still without wireless.

Some wards are much in need of redecoration and modernisation and gradually this very necessary work is being put in hand. At the present time an enlargement of the sanitary spurs of wards M. 3 and 4 is in the process of being built. We would like to see half doors opening outwards on all water closets at present without them; we noticed the need for this in F. 7 in particular. Ward M. 5, which has for many years been considered unsatisfactory from nearly every point of view, is at last to be rebuilt and we hope that the work will not long be delayed.

The male infirmary verandah has been extended during the present year and now provides space for 4 more beds. It is, however, inadequately ventilated and in hot weather becomes stuffy as well as very hot.

We were glad to find the new quarters for the Matron completed.

A new siren has been fitted since the last visit to serve as the fire alarm. We have discussed with Dr. Bainbridge the question of secondary exits from some of the wards.

Dinner yesterday consisted of cottage pie, greens and custard rice. We saw it being served in some of the wards and ward gardens as well as in the dining room of the female block. We noticed in the last named place that there was no method of heating the plates as in the summer time the steam by which the hot plate is warmed in winter is shut off.



Occupation therapy continues to play an important and most useful part in the treatment of patients at this hospital. Much attention is also paid to physical exercises for both sexes. We were interested to see a class of male patients exercising in a courtyard. The performance they gave was a good one. Attention is also paid to games and there are patients' teams for both cricket and football.

We visited the mortuary chapel and cemetery this morning. The former is most suitably furnished and great care is taken of the flowers in the cemetery.

The laundry was in excellent order. We noted that a new calender had been installed. The method of dealing with infected and soiled linen is very satisfactory and thorough.

Since the last visit the general health of the patients has been very good, but in January and February there was an epidemic of mild influenza which affected 260 patients (112 males and 148 females) and 30 of the staff (6 males and 24 females) but without any fatal results. There has been 1 case of scarlet fever, 1 of dysentery, 1 of enteric fever and 4 of diphtheria during the same period.

The number of patients in bed at the time of our visit was 165—84 male and 81 female—or in round figures 11 per cent. These showed evidence of careful nursing.

The mortality rate for the year 1936 was 7 per cent. (6·7 males and 7·3 females) which compares favourably with that of 6·8 per cent. the average for all mental hospitals in England and Wales. The principal causes of death were heart disease 29, pneumonia 14, senile decay 11, tuberculosis 10 and malignant disease 2.

Since the last visit there have been 84 deaths and in 64 cases post-mortem examinations were held.

During the same period 3 inquests have been held, particulars of which have been reported to our Board.

In the particulars furnished to us 18 casualties are set out as having occurred since October 29th, 1936, the date of the last visit. All of these were fractures with the exception of one dislocation. All were X-rayed except a fractured skull, in which case death was practically instantaneous. The fractures involved bones of the leg in 9 cases and of the arm in 4 and there were 3 cases of fractured ribs. In the majority of cases the fractures were due to accidental causes and in only two instances to the action of other patients.

Recently the pathological laboratory has been much enlarged and is now a very useful adjunct to the hospital.

The Medical Superintendent is fitting up a small ward on the female side for the treatment of suitable patients by insulin shock.

The clinic which is held weekly at the dispensary at Exeter by Dr. Bainbridge continues to do useful work.

Our interesting visit has been much facilitated by the helpful attitude of Dr. Bainbridge and his deputy, Dr. Penny.

#### DORSET MENTAL HOSPITAL.

*January 20th, 1937.*

We started our visit to this hospital on the 18th and since then we have visited all parts of it and we have seen all the patients in residence, conversed with many and granted two private interviews.

The hospital continues to be administered upon progressive lines and the patients enjoy skilled medical care and attention.

There are 900 patients in residence to-day—396 men and 504 women. Of these, 20 men and 29 women are on a voluntary basis and 2 of each sex are temporary patients, the remainder are under certificates.



During 1936 the admissions totalled 221, of these 69 were voluntary, 9 were temporary and 143 were certified. These figures showing the working of the Mental Treatment Act are not so satisfactory as they at first appear. The majority of the voluntary and temporary patients were admitted as private patients to Herrison House and the number of rate-aided voluntary and temporary patients was small. Dr. Bedford hopes to address a meeting of the Relieving Officers of the County shortly and we trust that as a result admissions under the Mental Treatment Act will increase. Of the patients in residence 75 men (20 in the service and ex-service group) and 87 women are private patients.

Two men and 8 women are out on long leave or on trial. The total on the statutory books is therefore 910.

The weekly maintenance charge for rate-aided patients is 22s. 9d. per week and for private patients from 35s. The average weekly maintenance cost is 22s. 5·6d.

One hundred and six men and 38 women enjoy parole beyond the grounds and 6 men and 1 woman parole within the estate.

The wards at this hospital are for the most part well proportioned and airy and those which house the better type of patient, particularly on the female side, are comfortable and well decorated with flowers. The other wards are, however, unusually bare and cheerless, quite a number are in need of redecoration. It is said that the more degraded type of patient would destroy ornaments, flowers and illustrated papers and the other things which go to make a ward comfortable and home-like. Our experience at other mental hospitals leads us to believe that the behaviour of patients is improved by pleasant surroundings and we think an experiment would be justified even if it involved some damage at first. The store-room space in the wards is at present very inadequate. When the nurses' home is built, some small rooms in most wards will become available for much needed cloakroom space. The fixing of rods for coat hangers would improve the storing of outdoor garments in those cloak-rooms still without them.

The ward letter boxes in which patients post their letters should in each case be fixed to the wall. The artificial lighting of some of the wards is in places insufficient, but we understand there are difficulties about improving it. We were glad to note that lockers for patients' private treasures had recently been introduced to male west ward. They are much appreciated.

Four wards have been given portable wireless sets of late, but the other wards of the hospital are without them. We hope that wireless will be provided in the near future. We feel sure that it would be a boon in those wards which house patients unable to go to the entertainments.

We have seen excellent occupation rooms both at Herrison House and at the main hospital where occupational treatment is carried out with most beneficial results. The patients attending these centres are for the most part of the recent and curable types. Work of this kind amongst the more chronic and excitable patients has been attempted, but we regret to find has almost entirely been given up. Our experience elsewhere has shown that such patients respond in the long run particularly well to occupational treatment. We hope that efforts to start the work again—perhaps upon somewhat different lines—will be made. We have talked to Dr. Bedford about the possibility of associating it with daily physical exercises for both sexes and we were very glad to hear that there was a possibility of country dancing being introduced. The old male dining hall is being redecorated. At present it is counted as bed-space but it has not been used as a dormitory for some time and we feel it would make an admirable occupation centre as an addition to those rooms which are at present used.

We have paid some attention to the patients' clothing which we feel is here somewhat below the average standard of that in mental hospitals throughout the country. The recent addition of a steam trouser press in the tailor's shop will effect an improvement in the appearance of the men's suits. The



female patients' clothing is, we gather, the subject of a good deal of attention at present. We hope the underclothing will be modernised particularly in the better wards. The dresses might be made upon a less institutional pattern and the aprons made of more attractive materials and on less severe lines.

Various complaints were made to us by patients regarding petty unkindness and even ill-treatment on the part of the nursing staff. It was impossible to find any corroboration for these complaints and we mention them only on account of their number, a factor which causes us some uneasiness. We know Dr. Bedford agrees with us that the closest supervision is called for.

The present staff of nurses consists of 8 men and 10 women of charge rank, 50 male and 60 female ordinary nurses and 10 men and 13 women on night duty. Two female nurses are employed on the male side.

Forty-six men and 23 women are certificated or registered as mental nurses and 8 men and 11 women have passed the preliminary examination.

The mortality rate for the year ended 31st December, 1936 was 8·8 per cent. The number of deaths since the visit paid by our colleagues on the 14th February last has been 69.

An inquest was held in the case of a male patient who hanged himself in the farm loft. There had been no indications of suicidal tendency and the patient was under consideration for discharge.

At the present time there is a small outbreak of influenza on the female side. Seven patients and 3 members of the staff being affected. Five female patients have died from this disease during the past year.

Three male patients have died from tuberculosis. At the present time 3 males and 4 females are reported to be suffering from this disease.

Twelve patients have sustained fractures, due in 8 cases to accidental falls, in 3 to violence by other patients and in one to an unknown cause. One patient was slightly burnt from jumping over the fire guard in the ward.

The need for an X-ray apparatus is emphasised by the above list of injuries.

It is gratifying to be able to record a marked diminution in the number of new cases of dysentery, only 3 having been notified in the past 12 months. This disease is an ever constant source of anxiety to the medical staff as the prevention of infection amongst patients of faulty habits is so dependent on the conscientious performances of duties by the nursing staff. We made a thorough investigation of these matters in the various wards and believe that the nurses generally carry out the instructions given them. A comprehensive routine for the prevention of the spread of disease through the laundry is strictly carried out.

The modernisation of the sanitary annexes throughout the hospital, including the provision of a hot water supply, however desirable, would be a costly business. Failing this, we recommend that all defective woodwork should be replaced and that all the woodwork in the water-closets should be painted white and repainted at frequent intervals. We notice that the doors in some of the annexes are awkwardly arranged and might be swung differently. We explained our idea to Dr. Bedford.

We were very favourably impressed with the quality of the work that is being done in the laboratory. The search for carriers of dysentery and enteric seems to be a never-ending task, but we are in complete agreement with Dr. Bedford's opinion that only by this means can these diseases be eradicated.

It is a pleasure to us to be able to record that we have found much evidence of the clinical knowledge and the keen interest taken by the medical officers in their work. In addition to their duties in the hospital, frequent attendances at the clinics at the Cornelia Hospital, Poole, the County Hospital, Dorchester, and the Weymouth and District Hospital, make much call upon



their time. The work done at these clinics is increasing in volume and importance. It has undoubtedly been responsible in reducing the number of patients that have had to be admitted to the mental hospital.

The Medical Superintendent, Dr. Bedford, has as his Deputy, Dr. A. C. Sinclair, and as assistant medical officers, Dr. J. S. Horsley and Dr. G. T. James. Our thanks are due to him and to them for the great assistance we have received during our visit.

DURHAM COUNTY MENTAL HOSPITAL.

April 2nd, 1937.

Our visit to this hospital, which has occupied the last two days, has been one of interest, and it is with satisfaction that we found progress continuing to be made in nearly all directions. During the course of our visit we were particularly struck by the high standard of decoration and cleanliness of all the day rooms and dormitories. An atmosphere of content prevailed throughout the hospital, and the relationship between patients and staff is good and of a kindly and considerate nature.

According to the statistics placed before us, it is satisfactory to be able to record that during the first quarter of the present year the advantages of the Mental Treatment Act, 1930, have been more widely appreciated in the County than in previous years. The percentage of direct admissions under section 1 and 5 being :—

								Voluntary. Per cent.	Temporary. Per cent.
For 1935	...	...	...	...	...	...	...	12	5
For 1936	...	...	...	...	...	...	...	12	3
For the first quarter, 1937	...	...	...	...	...	...	...	25	9

We understand that the increase of admissions under both sections of the Act is due to the co-operation of the Medical Superintendent with the general practitioners and relieving officers of the County. Of the total admissions for the year 1936, 170 of the certified patients came from their own homes direct and 111 through the public assistance institutions.

Dr. Wilson holds an out-patient centre weekly at Darlington, where he has the assistance of the local Mental Welfare Association. It has caused us some surprise that, as yet, no out-patient centre has been established in the more populous centre of Durham.

There are on the statutory books the names of 1,697 patients (883 men and 814 women), of whom 38 (20 men and 18 women) are on a voluntary, and 9 (women) on a temporary basis. Included in this number are 88 private patients, of whom 80 belong to the service or ex-service class. All these patients were in residence with the exception of 4, who were away on trial. No patients are boarded out; we have discussed this question with Dr. Wilson, as during our visit we found certain patients who would undoubtedly benefit from the help of an organization which promoted boarding-out in family care.

The services of a social worker would be most valuable and helpful in this direction, besides ascertaining the factors which had contributed to the patients' illness.

There is a deficiency of accommodation by day for 94 men and 83 women, but by night, according to the statistical information, there are 36 vacancies (16 men and 20 women).

The weekly maintenance charge per head for home patients is 26s. 6½d. and that for private patients ranges from 28s. to 42s. The average weekly maintenance cost as last ascertained is 26s. 6d.

The wards of the hospital are well supplied with pot plants and flowers, and have their walls attractively decorated with pictures. In a few of the ward sanitary annexes we found that "trough" water closets are still in



use, and we think that the time has now come when consideration should be given to replacing these with others of a modern type. Hot and cold water basins are provided in the ablution rooms throughout the hospital, but it would be of great assistance to the medical and nursing staff if similarly fitted basins could be installed in the wards themselves where sick and senile patients are nursed. It is desirable in the interests of hygiene that provision should be made for both sterilizing and storage of bed pans in these wards.

There is a good supply of newspapers, books and games, and each ward is now provided with wireless. The comfort and amusement of the patients are well studied, there being among the various entertainments a "talkie" cinema performance twice a fortnight, and a dance once a week.

The furniture in the day rooms is comfortable and appropriate, but in one or two wards, such as Winterton Female 1, we thought the addition of more armchairs or settees would be appreciated. The dormitories of the hospital, like the day rooms, are well kept and pleasingly decorated, but several are large and are shared by the patients from various day rooms. This "cross sleeping" must necessarily tend to inconveniences, and presents nightly recurring problems to the nursing staff. We were interested to learn that the Medical Superintendent is endeavouring to eliminate these difficulties as far as possible.

Eighty-three men and 37 women enjoy parole beyond the hospital estate, and 71 men and 28 women parole within the grounds.

The patients of both sexes are well dressed, and their clothes are modern and well kept; it was pleasing to find that individual care had been given, ensuring the men's suits fitted properly.

Of the out-door recreations inter-ward football matches are very popular, and a cup and 12 medals are to be presented to the winning team of the league.

Among the recent alterations and additions carried out at this hospital are :—A new boiler for the heating and hot water supply, an alternative water supply, and a new administration building comprising offices and mess rooms, etc. In addition the female general bathroom has been provided with bath screens of light wood and with dressing cubicles similarly partitioned.

Under 8 per cent. of the men and 6·8 per cent. of the women were being nursed in bed at the time of our visit, enquiries regarding a number of them and other sick, satisfied us that their cases had been particularly well explored from both clinical and laboratory points of view.

The resident staff has the assistance of a consultant surgeon whenever his services are needed, and we are glad to learn that it has been decided to construct a surgical theatre, the site selected being that of a former mess-room.

Among the therapeutic activities of the hospital the use of physical exercises takes a prominent place, there being five separate classes daily for patients of each sex. It is very desirable that an additional nurse on each side be available for assisting in the instruction of newly arrived patients who require individual attention, as well as for holiday duties. Some useful occupations for difficult or retarded patients are provided in some of the wards, and the routine work of the hospital is, to some extent, made use of as occupational treatment among the more active women who, as in the Winterton wards, carry out the mending for the corresponding men's wards. It would, however, substantially facilitate the progress of treatment by occupation if the medical officers and senior nursing staff of each side were given the opportunity of observing for themselves the organization and development of this valuable form of medicine in a hospital where it has been very successfully advanced.

Dislocations of joints have occurred in the cases of 2 men and 3 women; 5 men and 6 women have sustained fractures; 11 of these injuries were due to falls, 2 being in fits (one fatal), and 3 to the actions of other patients; one was due to the resistiveness of a patient and one of the dislocations was a recurrent case.



In January there were 3 fatal cases of dysentery in male ward 10; in two of these the Flexner "Y" bacillus was isolated. Six women in wards 2 and 4 of the main building have been affected by diarrhoea of a milder character, and no pathogenic organisms were found in their excreta.

Influenza has attacked 155 men, 157 women, and 55 members of the staff; at present 6 patients are still under treatment. Twenty-one died of this disease.

Good provision is made for the open-air treatment of tuberculosis—separately from other patients—and 16 men and 14 women are thus accommodated. Eight men and 10 women have died of this infection. We have studied with Dr. Wilson a list of wards showing the movements of the affected patients prior to the onset of their disease, and we have discussed with him the overhaul of "contacts."

Among the causes of the 193 deaths which have occurred since the last visit, cardio-vascular disease, inflammatory states of the chest and senile decay are the most prominent, numbering respectively, 36, 34 and 29. Kidney disease caused 16, and general paralysis 13 deaths; 2 were due to erysipelas, 1 to diphtheria, 1 to appendicitis, and another to intestinal obstruction from cancer of the bowel. Last December an epileptic patient who was being assisted upstairs fell in a fit, sustaining head injuries, from which he died. An inquest was held, and the situation of a door at the head of the stairs in question was commented upon. Arrangements are in progress to remove the epileptic patients from these to other quarters.

Post-mortem examinations were conducted in approximately 60 per cent. of the deaths. The death rate for the year 1936 was 97 per thousand. During the course of our visit we inspected the mortuary, and viewing room; we discussed with Dr. Wilson the question of redecorating or rebuilding the latter.

The ward nursing staff consists of 194 men and 161 women nurses, of whom 29 and 33, respectively, are of charge rank; 21 men and 18 women nurses were on duty for the night March 30th/31st. Over 51 per cent. of the men and over 23 per cent. of the women held a certificate in mental nursing, and in addition 6 men are registered.

The dietary is arranged on a four-weekly system for the three main meals of the day. The present delivery of fish is once a week; it would probably be an advantage for patients on sick diets if a more frequent delivery could be secured. We would offer the suggestion that tea might be made in certain wards instead of in the main kitchen. There is no periodical issue of fresh fruit during the winter, such as apples or oranges.

In most of the wards there is no provision, other than open fires, for the heating of plates. We feel that the provision of some type of plate warmer in each ward would afford a more enjoyable hot meal.

There are many juvenile and older mentally defective patients at the hospital who are awaiting the completion of a colony, but apart from these patients there is an epileptic boy of 14 years, but small for his age, who was received here on account of his mischievous conduct after leaving an industrial school. We would like to be assured that some endeavour be made to secure his admission to an epileptic colony or other appropriate institution.

Throughout the course of our visit we were accompanied by Dr. Wilson and his assistant medical officers in their respective divisions, and we have to thank them for their ready assistance.

#### ESSEX AND COLCHESTER MENTAL HOSPITALS.—1. BRENTWOOD.

*July 16th, 1937.*

During the course of our visit to this hospital, which has occupied the last three days, we have found that many varied alterations and improvements have been carried out since the last visit paid on behalf of our Board.



According to the information given us there were 452 direct admissions during the year 1936 and 331 in 1935—an increase of approximately 36 per cent. The advantages to be gained from both sections 1 and 5 of the Mental Treatment Act, 1930, are well appreciated by the general practitioners and relieving officers in the area served by this hospital, the percentages of the direct admissions as voluntary and temporary patients during 1935 and 1936 being 48 per cent. and 11·5 per cent. and 43 per cent. and 13·75 per cent., respectively.

At our visit two points struck us as outstanding, namely—the existence of overcrowding with its consequent handicaps, which are referred to at a later stage of this entry, and the increase in the number of direct admissions during 1936. For the first six months of this year the direct admissions already number approximately 280.

It is of interest to record that of the 452 direct admissions in 1936, 396 were received from the Public Assistance Institutions, and the remaining 56 came direct from their own homes. Of the former 35 per cent. were voluntary and 13·75 per cent. temporary patients.

There appear on the statutory books the names of 2,018 patients (827 men, and 1,191 women), of whom 147 (61 men, 86 women) are voluntary, and 14 (4 men, 10 women) temporary patients. Included amongst those on the statutory books are 79 patients belonging to the service or ex-service class. All were in residence with the exception of 5, who were away on leave or trial.

The weekly maintenance charge per head for home patients is 23s. 4d., and for those belonging to the service or ex-service class 27s. 1d. The average weekly maintenance cost as last ascertained is 24s. 4d.

One female and 3 male wards or villas are administered on the open door principle to the hospital grounds, and 3 female and 3 male wards or villas are open to their respective courts or gardens. Fifty patients of each sex enjoy parole beyond the hospital estate, and 212 men and 46 women parole within the grounds.

The patients are well behaved, and for the most part generally contented. Seven private interviews were given, most of which were based on requests for discharge.

Both the men and the women were suitably dressed, and their clothes bore the appearance of being well cared for. In spite of the lack of cloak-rooms and hanging space for clothes a good standard of preservation has been maintained. We would like to suggest that the room at A.B.C. block, which is used as a boot stock room, should be turned into a cloak-room, as at present the patients keep their suits in their bedside lockers. Open nests of lockers are to found in most wards of the older building, but we feel, especially as regards those in which food is kept, which we deprecate, the fitting of doors would be more hygienic in addition to adding to the privacy of the patients' belongings. In a few wards we found bread baskets were in use, and again for reasons of hygiene we would recommend their replacement by bread bins.

The patients' outdoor and indoor recreations and amusements are well studied, and they have a good supply of books and daily newspapers. Table tennis has been introduced in many wards on the male side, and has proved very popular.

The dayrooms and dormitories throughout the hospital are well kept, clean and present, as far as the structure allows in the older buildings, a bright appearance with their flowers and furnishings. The single rooms, which are used for the well behaved type of patient, are well decorated and furnished. Replastering and redecorating is proceeding throughout the hospital wards, particularly in D block, where new and large windows have been installed. The admission hospital, which is only a year old, is very attractive in its appearance, and the good furniture has been respected and appreciated by the patients.



The ward airing courts have their grass well kept and their flower beds well stocked, with the exception of the court to female ward N.5, which is for refractory patients, where we were disappointed to learn that efforts at making flower beds had not as yet been successful. In some of the airing courts the asphalt paths, and where they too form the floors of the foul linen sheds, need attention. The addition of a shelter in the gardens used by the patients in D infirmary would add to their comfort in summer and winter.

At our visit to the kitchen we found a need for extractor fans which, if installed, should improve the ventilation and lower the temperature. The floor of the vegetable room and parts of the floor near the gutter draining in the kitchen are in need of repair. The former holds water, and both must be difficult to keep clean. The washing basins for the use of patients employed in this department are rather worn, and similarly must present difficulties in quick cleaning. The carding machine shed we are told, becomes dusty; this may be due to a defect in the machine, but if not we suggest consideration might be given to procuring better ventilation. While we were there we drew attention to the size of the feed to the machine, and suggested a means by which an accident could be obviated.

Occupational treatment progresses on both sides of the hospital. On the female side there is an occupation centre where good work is done as well as in the wards themselves. On the male side it is similarly organized except that ward 10 has to be temporarily used as a centre till the new building, now in the course of erection, is completed. Classes in physical exercises are held daily for patients of both sexes, particular attention being paid to the selection of the more regressed and suitable type of patient.

Overcrowding still persists at this hospital, and according to the figures placed before us it would appear that there is a deficiency of accommodation by day for 141 men and by night for 36 women. There are according to the figures, however, a surplus of accommodation by day for 35 women and by night for 25 men. The mortality rate for 1936 was 9·7 per cent. for male and 5 per cent. for female patients. A total of 7 per cent., which compares favourably with the average for all mental hospitals.

During the 11 months covered by this entry 66 male and 71 female patients have died, of whom 24 and 26, respectively, were over the age of 60. The causes of death, verified by autopsy in no less than 80 per cent. of the deaths, include 9 from tuberculosis, 11 from general paralysis, 40 from heart and circulatory diseases, and 21 from disease of the respiratory tract.

The deaths of 2 male and 3 female patients have been the subject of inquests. The female patients were found to have died from natural causes accelerated in one instance by a fracture, but of the male patients one was suicide, and the other resulted from his own action whilst of unsound mind; in both instances the full facts were reported to our Board.

Accidents (all fractures with the exception of one dislocation) have been sustained by 5 men and 12 women, most of whom were advanced in years. Five of these were being nursed in bed at the time of the accident, but in each case the patient had got up without permission. The remainder were purely accidental, and none was due to interference.

Influenza attacked 219 patients, and 20 staff at the beginning of this year; a sporadic case of enteric fever, from which the patient died, occurred in March; 1 male patient had an attack of chicken-pox and 6 others suffered from erysipelas between last October and May of this year. These figures, together with those quoted elsewhere for dysentery, represent the sum total of zymotic illnesses since the last visit. Five men and 9 women were being treated for tuberculosis under suitable open-air conditions and precautions, but there are altogether 15 male and 18 female patients on cards.

Chiefly owing to the energetic laboratory attack on dysentery the incidence of the disease at the hospital has decreased from 42·6 per 1,000 in 1932 to 13·4 per 1,000 in 1936, though there was a considerable and unexplained rise in 1934. This reduction has been obtained (a) by the bacteriological



examination of all new admissions; (b) by the similar examination of every patient in the hospital, and (c) by the investigation of everyone in a ward where a sporadic case occurred. In addition, it is now proposed to carry out a re-investigation of all old cases twice a year. Other contributory factors to the decrease of incidence have been the extension of occupation therapy with its socializing influence on certain types of patients, the careful attention given to ward and dormitory hygiene and possibly to some extent to an alteration of dietary including a larger supply of vitamin bearing food-stuffs. However, in spite of these precautions the incidence rate for last year was more than four times that of the average for Public Mental hospitals. This apparently high incidence can be explained to a large extent by the thoroughness of the laboratory methods employed in suspected cases, and to the intensive search for carriers. New cases of dysentery or recrudescences continue. No one was suffering from the disease at the time of our visit, but nine cases have been recorded during the 11 months covered by this entry, and there were today 109 male and 123 female patients on cards. Ward space is insufficient to completely segregate this large number even if it were desirable, but as far as possible those patients of faulty habits are collected together in special wards, and these form the majority of the post-dysenteric group; others, less mentally deteriorated, are to be found in most of the wards particularly on the male side. In all cases attention is devoted to the prevention of possible infection, but no undue hardships are inflicted as regards the social life of these patients in the hospital.

During the course of our visit we paid particular attention to possible concomitant factors bearing on the incidence of dysentery. One of these is, no doubt, overcrowding which is greater than represented by the figures given elsewhere in this report on account of the uneven distribution. Other factors, we believe, are inadequacy of ward and dormitory sanitary arrangements and lack of storage accommodation in the main building.

These old buildings offer a very limited scope for the reconstruction of sanitary annexes. Within these limits improvements have been carried out, and will continue to be carried out in connection with redecorations. We venture to suggest that a much more practical policy is called for than is possible within the limited area occupied by existing conveniences, and one which would give additional room for storage and for ward sculleries. We would also remark upon the insanitary condition of most of the ward garden conveniences, which are dark, poorly ventilated and, in some cases, damp.

There were in bed today 51 male and 173 female patients. Very few of these were seriously ill; the majority being either elderly and feeble people, or resting for mental reasons. About 30 were recent admissions.

The nursing arrangements appeared to us to be very good, and many of the patients expressed satisfaction with the arrangements made for their comfort. There is an adequate supply of well equipped clinical rooms in which very excellent case notes are kept in folders to be copied nightly into case books kept in the administration centre. We think that in the admission hospital, and perhaps elsewhere, refrigerators would be an advantage.

The pathological laboratory under the direction of Dr. Power continues to be an important feature of the hospital. All routine examinations are carried out, including the Wassermann test, and also other work more in the nature of research. It is hoped that it may be possible to extend the laboratory activities along the lines of bio-chemistry.

The clinics continue to be well attended, and to them are referred cases both by the public assistance institutions and by practitioners. They are held weekly at Oldchurch Hospital, Romford, twice monthly at Woodford and at Orsett Institution when required.

The nursing staff consists of 156 men and 187 women of whom 26 and 33, respectively, are for night duty. Those who are certificated or registered as mental nurses, number 105 men and 71 women, while 13 of the former and 43 of the latter have passed the preliminary examination. There is excellent



equipment for teaching, and the high percentage of qualified and partially qualified staff is evidence of the nature of the training given.

We were unfortunate in not having Dr. Masefield with us during our visit since, in his absence, it was a little difficult to be quite sure what future plans he may have in mind, although Dr. Power gave us as much help as possible in this direction.

The assistant medical staff comprises Drs. Pearce, O'Byrne, Morton, Nightingale and Copeland, each of whom in his respective department showed an intimate knowledge of his patients and gave us every assistance.

ESSEX AND COLCHESTER MENTAL HOSPITALS.—2. SEVERALLS,  
COLCHESTER.

*April 28th, 1937.*

During our visit to this hospital, which has occupied the last two days, we have found that everything is in excellent order and that the hospital continues to be admirably administered, great care and attention being given to the needs of the patients.

Many alterations and improvements have been carried out since the last visit of the Commissioners some 14 months ago. Myland Court, a villa utilized for female private patients, has been built out so as to accommodate from 5 to 6 patients of the more disturbed category. This will be a great improvement as it will allow of better classification in the rest of the house. Likewise to improve classification and to add to the facilities for nursing sick and senile patients, wards W., W.1, and W.2 on the female side and wards 12 and 13 on the male side are to be reconstructed. Already new verandahs and sanitary annexes have been completed in these wards. Other wards which have recently been provided with verandahs are E and R.

The canteen, conveniently situated so as to serve both patients and their friends, has been trebled in size and is well stocked with all the popular requisites. A hairdressing saloon, well equipped with modern appliances, was first opened on the day of our arrival. At first it is contemplated to cater for the needs of female patients, and there is in attendance a lady hairdresser. This innovation should be of great help to the patients in enabling them to maintain their tidy appearance and self-respect, so important in the treatment of mental illnesses.

A new occupation centre for men has been completed and is situated adjacent to South Villa. This centre has a store room and a sanitary annexe, the provision, though, in the latter of a urinal, if found practicable, would be an advantage. We discussed with Dr. Turnbull the question of urinals in ward sanitary annexes generally, and suggest that wherever it is found possible these conveniences might be installed.

The patients' clothing of both sexes is of a modern and suitable type, and the system whereby each patient has his or her own individual set of clothing is being developed wherever possible. The appearance of the patients was most neat and tidy, and their clothes are well kept. Coat-hangers are employed in most of the cloakrooms, and we understand that in the near future these are to be more widely adopted. Both the tailor's shop and the laundry are provided with steam clothes presses.

Each day room and sick dormitory is well furnished and has a plentiful supply of pot plants and flowers. The standard of decoration throughout each villa and ward is very high, a great deal of good taste being displayed in the selection of light coloured curtains, cushions and chair coverings, etc. Cleanliness and tidiness were to be found wherever we visited in spite of the difficulties which must accrue from overcrowding. Overcrowding, apart from its more obvious disadvantages, is responsible for many smaller handicaps, such as shortage of space for bedside lockers in some wards and lack of sufficient accommodation in boot and cloakrooms. The charge nurses take



a great pride in the appearance of their respective villas and wards, producing a spirit of competition giving excellent results. Overcrowding has to some extent been reduced since the last visit and will still further be reduced in the near future, when Runwell Mental Hospital is in a position to take over some 130 female patients. The overcrowding will also be lessened when the temporary building to house 50 women, which is nearly ready, is occupied. On the male side a temporary building similarly is being erected, but will not be finished for another three months or so. At the present time there is a deficiency of accommodation by day for 54 men and 149 women, and by night for 57 men and 8 women.

It is satisfactory to observe that, in part owing to the activities of the Medical Superintendent in circularizing the relieving officers of the county, and in consequence of his scheme for the closer co-operation between the general practitioners and himself, the advantages to be gained from both Sections 1 and 5 of the Mental Treatment Act, 1930, are being more widely appreciated. Of the direct admissions during the year 1936 25 per cent. were received on a voluntary basis and 16 per cent. on a temporary, compared with 22 per cent. and 12 per cent. respectively for the year previous to that. The percentage of the direct admissions who came straight from their own homes is satisfactory, being 64. Dr. Turnbull holds his out-patient centres weekly, both at the County Hospital, Colchester, and at the Chelmsford Hospital.

Six private interviews were given, and these were mainly based on the desire for discharge or transfer.

There appear on the statutory books the names of 2,148 patients, 869 men and 1,279 women, of whom 96, 34 men and 62 women, are voluntary patients and 17, 8 men and 9 women, temporary. Private patients number 179, which figure includes 63 belonging to the service and ex-service class. All these patients were in residence with the exception of 17 who were away on trial.

One man and 34 women enjoy parole beyond the hospital grounds, and 240 men and 270 women parole within the estate. Some 15 men per week receive a daily pass, which enables them to enjoy the privileges of outside parole. Three villas on the male side and 2 on the female side are open to the grounds, and 5 male and 6 female wards are open to their respective gardens.

The weekly maintenance charge per head for home patients is 23s. 4d., and that for private patients ranges from 30s. to 78s. 6d. The average weekly maintenance cost as last ascertained is 22s. 11d.

Occupational treatment progresses steadily at this hospital, care having been taken to concentrate on the more recently admitted cases and on those of the more recoverable type. Classes in handicrafts are held in the villas and in nearly all the wards. There are two occupation centres, one for each sex. In the male centre the patients are occupied in carpentry, basketry, bookbinding, leatherwork, brushmaking, etc., while in the female centre weaving, basketry and bead work are the various forms of occupation. Embroidery, knitting, rug-making and the like are practised at the classes held in the villas and wards. Classes of physical exercises are held for men and women, those for the men being arranged three times a week, and those for the women nearly every day.

The patients' indoor amusements and recreations consist of wireless, whist drives, concerts, dances and a talkie cinema performance about three times a month. Included among the outdoor recreations are football, bowls, croquet, tennis and net ball. A novel feature which has proved most satisfactory and popular is an indoor bowling rink in the recreation hall which can readily be laid down and removed quickly when necessary.

In the summer months many excursions are made to the seaside, and Dr. Turnbull discussed with us the hope that in the future this form of outing



will not only be continued, but, if possible, so arranged that a longer time can be spent by the sea.

We examined the dietary, a fortnightly one, and we saw dinners served in several wards. The quality, quantity and variety of the food appeared to us to be quite satisfactory, and the meals were nicely served. In the Farm Villa we were particularly impressed by the service of the vegetables in separate dishes for each small table. The method of plate warming leaves something to be desired, but we know that Dr. Turnbull has this matter in mind.

The mortality rate for 1936 was 6·6 per cent. for males and 6·3 per cent. for females, figures which compare favourably with the average for all mental hospitals over the same period.

In the 14 months since the last visit 80 male and 111 female patients have died. Out of this total of 191 deaths no less than 103 were of patients over 60 years of age. The cause of death was verified by autopsy in 158 instances.

The majority of deaths were due to physical failure incidental to old age. Two female patients who died from enteric fever, were the only cases of this disease occurring during the last 3 years. One of the 2 patients (both women) to be affected by dysentery during this period has died, the other is still under treatment. Six patients of each sex have died from tuberculosis, and there were to-day 10 men and 14 women under treatment for this disease. Inquests were held on 3 patients of each sex. Two of these died from the results of accidents prior to admission, 2 committed suicide while on leave, 1 was due to an accidental fall in the hospital, and the last, an epileptic, was suffocated in bed, a verdict of death by misadventure being returned.

Influenza has affected 313 patients and 45 staff. Most of the cases occurred this year, mainly in January, when 231 patients and 37 staff were ill. The mortality from influenza is reflected in the large number of deaths from pneumonia (33), and heart disease (74), in addition to the 3 patients whose deaths are returned as directly due to the infection.

Two men and 9 women have met with serious accidents with 1 fatality. In 8 instances the patients were over 60 years of age. All were due to accidental falls, and except 1, a dislocation, were fractures. Two were bed patients at the time of the accident, which was not attributable to negligence on the part of the staff.

There were 142 male and 289 female patients confined to bed, representing 16 per cent. and 23 per cent. of the respective sexes. The figure on the female side is rather higher than we are accustomed to find. This is explained by the large senile population and to some extent by the lack of day accommodation for the more turbulent cases who might otherwise be permitted to be up for some part of the day. Every effort is made to alleviate the ill-effects of overcrowding by the provision of verandahs to all these wards, where many patients are able to spend the day in the open air with great benefit. The contemplated re-arrangement of some of the wards, previously referred to, will provide further relief. The number of actually sick patients was comparatively small.

The sick and infirm wards show a high standard of equipment with attention to detail. They are light, well ventilated and comfortably warmed. The nursing staffs are well trained, have a good knowledge of their patients, and are on the best of terms with them all, particularly with the older patients, who spoke appreciatively of the kindly care bestowed upon them both by doctors and nurses.

In the hand feeding of verandah patients it is always a difficult matter to keep the food hot. We were interested to hear from Dr. Turnbull that he is contemplating small rooms adjacent to verandahs where a small oven can be installed for this purpose.

Sanitary annexes with sluice sinks are convenient to some verandahs. Where these are not available screened commodes are provided, but in many cases, notably in male ward 1, the sanitary annexe is so far away that the



emptying and cleaning of bed pans, etc., may well be a source of inconvenience to staff, and a possible annoyance to other patients in the wards. We suggest that consideration might be given to improvement in this direction.

Periodic inoculation with T.A.B. vaccine against enteric fever is routine. There are now 6 male and 2 female patients known to have had enteric at some time, while 1 man and 7 women are old dysenterics. Dysenteric patients are submitted to half-yearly re-examinations, and broadly speaking, after 5 years of such examinations, consisting of 3 tests separated by intervals of 7 days, if the results have been negative a dysenteric patient may be removed from card, though still excluded from employment connected with food.

The pathological department, supervised by Dr. Duncan, is a very active unit. There are two trained laboratory assistants, and all investigations, including Wassermans, are done in the hospital.

The clinics at Colchester and Chelmsford hospitals continue to be of great service. From what we are told we can see that both are functioning well, both as treatment centres and in a consultative capacity.

The nursing staff of 156 men and 225 women comprises 15 and 21 respectively, who are charge nurses with 27 men and 43 women for night duty. One hundred and five of the male staff and 65 of the women are registered as mental nurses, while 30 of the former and 41 of the latter have passed the preliminary examination.

A teaching unit for nurses is included in the sisters' home to be erected shortly.

Dr. Turnbull has the assistance of Dr. A. G. Duncan as his deputy with Drs. Haworth, Dixon, Andrews, Annesley, Brooks and Nettle as assistant medical officers, to all of whom, in their respective capacities, we tender our thanks for the help given during our interesting visit.

#### GLAMORGAN COUNTY MENTAL HOSPITAL.

*February 25th, 1937.*

We have to-day completed our visit to this hospital, which began on the 22nd. During the year which has elapsed since the visit of our colleagues in February, 1936, steady progress has been made in the necessarily protracted task of modernizing Angelton and Parc Gwyllt. A great deal remains to be done, and we have been glad to find, in the course of our discussions with Dr. Owen, the medical superintendent, that the visiting committee and he are fully alive to the many urgent needs of the hospital.

In December last the new female convalescent villa—a unit with 20 beds—was opened for the reception of patients, and visiting the villa yesterday we found some 12 patients in residence. It is a very pleasing building, furnished with comfort and taste, and it is well suited to its purpose.

We were glad to find that wireless has been installed throughout the wards of the hospital. It is an amenity much appreciated by the patients.

The ward gardens have been receiving a good deal of attention recently; new garden seats have been provided everywhere, the paths are in process of being remade, and a start has been made in doing away with the high walls at the end of the garden. In those ward gardens where this last improvement has been completed the change is noticeably for the better, and patients are able to enjoy long and uninterrupted views of delightful country.

We have been glad to find that many of the suggestions made by our colleagues in the last report have been attended to.

The laundries and kitchens in both parts of the hospital are inconvenient and out of date. Their modernization is, we understand, under consideration. At Parc Gwyllt the kitchen floor has been retiled and some modern equipment put in, but many other improvements are needed, amongst them the replacing of the antiquated tea-boiler, the improved ventilation of the bread room



and its redecoration, along with that of the vegetable room. A refrigerator is on order here. A new bread slicing machine is also needed. At Angelton the kitchen requires replanning as well as modern equipment. Of the laundries perhaps that at Parc Gwyllt is the more out of date, and both are urgently in need of new machinery. We have noticed during our tour of the dormitories the bad colour of the twill bed sheets and pillow cases. We are confident that this is due in part, at any rate, to the inadequacy of the laundry equipment, although we are inclined to the opinion that further consideration should be given to the chemicals used in cleansing. With modern machinery in the laundry the much needed introduction of individual hand towels for all patients would become possible.

Another urgent matter is the modernization of the sanitary annexes in all the older parts of the hospital. The water closet pans in many places need renewal and the wooden seats are so broken and cracked as to be quite unhygienic. On the male side at Angelton we think greater care should be taken in the cleansing of the water closets and the floors surrounding them, and more attention paid to keeping the windows open for proper ventilation. Many of the wash rooms are without hot water. It would be useful if at least one hot water tap were placed in each. We thought that more use might be made of the wash rooms off the dormitories to relieve congestion in those downstairs. As an example we mentioned ward F.3 at Parc Gwyllt.

The patients in residence number 1,974, 1,147 men and 827 women, and as no patient is either out on leave or on trial these numbers correspond with those upon the statutory books. During the past year we understand, a system of week-end leave has been introduced, and has been found most successful, but we would like to see a longer leave period granted to patients before discharge. There are at present 94 men and 58 women voluntary patients and 8 men and 12 women temporary patients, the remainder, 1,045 men and 757 women, being certified patients. During 1936, 152 voluntary and 55 temporary patients were admitted out of a total of 465 direct admissions. These figures are most satisfactory. It is also interesting to note that of the direct admissions 83 per cent. were admitted to the hospital direct from home. Eighty-four men (75 in the service or ex-service groups) and 22 women rank as private patients.

Overcrowding persists, particularly on the male side, where there is a shortage by day of 181 and by night of 110. On the female side there is a shortage by day of 12. In this connexion we might point out that on the female side at Parc Gwyllt one of the day-rooms is very little used, and that a dormitory which holds between 50 and 60 beds is at present unoccupied.

A number of mental defectives are still to be found in several wards of both sides of the hospital, and if other accommodation could be found for them overcrowding would be sensibly relieved. We saw two trainable defectives whose removal elsewhere we consider important.

The weekly maintenance charge for rate-aided patients is 26s. 3d., and for private patients from 26s. 3d. to 40s. 3d. The average weekly maintenance cost is 25s. 10d.

Forty-nine men are granted parole beyond the estate, and 70 men parole within the grounds. The latter privilege has been given to the 12 female patients at the convalescent villa since it opened. We welcome this extension of parole to the female side of the hospital.

We believe we have seen all the patients in residence and we gave three private interviews. Few complaints were made, and none of any substance. The patients on the whole, were remarkably quiet and well-behaved, and we believe they receive most kindly treatment and careful nursing. Their appearance was neat, and it is obvious to us that a good deal of attention has recently been paid to the question of patients' clothing.

The female dress has become more varied in colour and design, and efforts are now made to fit the individual patient.



We liked some of the materials used for the men's suits. It would do much to smarten the appearance of the men if a steam trouser press were to be installed in each tailor's shop or in each laundry.

Another matter closely affecting the appearance of male patients is shaving. Normally patients are shaved twice a week, but many receive only one shave. We regard two shaves a week as a minimum.

The number of male patients wearing nightshirts remains small. We feel much could be done by the male nursing staff to encourage their use. A small stock of pyjamas might well be kept for use in some of the better wards by patients accustomed to wearing them in their own homes.

Steps are being taken to redecorate all the wards of the hospital, and where redecorations have been carried out already the effect is most pleasing. Generally the wards are comfortably furnished with many homelike touches, and they are well supplied with books, periodicals and games. Spittoons, which are fast disappearing from many mental hospitals, still remain a prominent feature on the male side here, unfortunately. We have suggested to Dr. Owen the possibility of reducing their number at the admission hospital with a view to their eventual disappearance from that unit at least.

In many of the side rooms the artificial lighting is quite inadequate. We would like to see all patients whose state compels them to be nursed on the floor in side rooms to be provided with two mattresses. Coat hangers are to be provided in many of the ward cloakrooms, and the male occupation centres are hard at work making them. The ward medicine chests have all been remodelled to conform with the requirements of the recent modifications introduced into the Dangerous Drugs Acts.

We have suggested to Dr. Owen the possibility of introducing a proper routine for the care of patients' false teeth.

So far there is no talking film apparatus at either Parc Gwyllt or Angelton. The matter is, however, under consideration, and we hope that efforts will shortly be made at Angelton to overcome the undoubted acoustical difficulties.

The question of space has up to the present prevented the opening of a proper canteen at either Angelton or Parc Gwyllt. Patients, it is true, are allowed to visit the stores and make certain purchases, but we could not ascertain that this privilege was ever exercised at Angelton, and it is rarely made use of at Parc Gwyllt. Patients are, in fact, generally unaware that they can visit the stores, and indeed there is little to attract visits there. We do hope every effort will be made to provide canteens in the near future. A small kiosk in each entertainment hall should be possible as a temporary solution.

Occupation therapy has developed somewhat, on the male sides at any rate, during the period under review. The illness of the occupation officer on the female side has held up matters for some months. Lack of space again is a serious difficulty. Our colleagues recommended the erection of pavilions for occupation therapy as a solution of the space question, and this was agreed to by the Committee. The work, however, has been held up. We are sorry that this is so for the development of occupational treatment here is in our opinion a vitally important matter. The pavilions advocated by our colleagues could be erected at very small cost, and could speedily be built.

We were glad to hear that a start in physical training had recently been made.

It has struck us in the course of our visit that the patients at this hospital do far less of the ordinary work of the institution than is usual in similar hospitals elsewhere. In the wards this throws an undue amount of domestic duties and sewing on the nursing staff. In the kitchen we were sorry to hear that even the few women employed there are shortly to be removed, and the work entirely carried out by paid labour. In the laundry comparatively few patients are employed. This trend is bad for the patients from the treatment point of view, and does much to stultify the benefits of occupation



therapy as one of the objects of the latter is to re-educate the patients to become useful members of Society. It has been found elsewhere that the institution of privileges for workers forms a potent inducement to the patients to be useful. The giving of tokens to be exchanged for small extra comforts at the canteen is one method that has proved successful at other hospitals. Perhaps the most important point of all is the realization by all concerned of the real importance of occupation in the treatment of mental patients.

The present staff of nurses consists of 16 men and 15 women of charge rank, 164 male and 122 female ordinary nurses and 20 male and 23 female nurses on night duty. Seven women are employed as nurses on the male side of the hospital. One hundred and forty-nine of the male nurses and 44 of the female are registered or certificated as mental nurses, and 15 men and 26 women have passed the preliminary examination.

The death rate of 9·4 per cent. is somewhat higher than the average for all County and County Borough mental hospitals for 1936. During the period under review 189 patients have died: post-mortem examinations were held in only 76 cases. Cardio-vascular diseases figure most prominently amongst the causes of death, accounting for no fewer than 70 cases. Thirty-six deaths were attributed to senile decay and 30 to pneumonia.

Thirteen patients died of tuberculosis. At the time of our visit 19 patients were being nursed as tubercular patients. The difference between the notification and death incidences for this disease may be regarded as one criterion of the diagnosis of the condition in the earlier stages. Dr. Owen commented that a number of patients are not sent to the hospital until the disease had reached an advanced stage.

Four inquests were held during last year. One was on the death of an epileptic patient who two months previously, and prior to admission, had sustained severe burns; the immediate causes of death were, however, acute lobar pneumonia and myocardial degeneration. In the remaining 3 cases verdicts attributing death to natural causes were given.

Fourteen patients, 6 men and 8 women, have sustained severe injuries. With the exception of one case of dislocation of the shoulder joint, fractures were diagnosed. Four of the patients received their injuries as a result of altercations with other patients, one by falling in a fit, and as many as 9 are attributed to falling accidentally. None of the patients was being nursed in bed at the time the injury occurred. On examining the casualty books we had grounds for concluding that in a few wards no record was made in these books of injuries which could reasonably be regarded as serious.

Between May and October last year there were 4 cases on the male side of dysentery (Flexner organism), and in 1 case the illness proved fatal. At present there are no cards for intestinal diseases. The practice at this hospital is to discontinue the use of a card in all cases yielding six negative results on bacteriological examination. We discussed with Dr. Owen and his medical colleagues the precautionary measures they adopt to ensure the prompt diagnosis of a new case of dysentery, and to prevent the infection of other patients. All new admissions are examined bacteriologically, and when a fresh case occurs all contacts are examined.

At the time of our visit 235 patients, i.e. nearly 12 per cent. of the hospital population, were being nursed in bed (39 in the admission hospital, 67 at Angelton, and 129 at Parc Gwyllt. The wards at Angelton and Parc Gwyllt in which the sick and infirm are being nursed lack many of the amenities found at the admission hospital. These older units have but few facilities for nursing patients in the open air during the winter months—we were assured that many of the beds were moved into the gardens when climatic conditions were favourable. The labour of moving patients between the wards and gardens would be much reduced if beds which could be easily wheeled were provided in these wards. Another labour-saving provision much needed in the large sick wards is a fixed wash basin with hot and cold water.



The value of a modern admission hospital we believe is well exemplified here. The excellent facilities provided at this modern unit for medical and surgical treatment and for efficient nursing has resulted in a general improvement of the medical and nursing care throughout the hospital. Moreover, we welcome signs of a more scientific attitude towards their many problems on the part of the medical staff. An instructive memorandum on the medical, surgical and gynaecological conditions of 164 consecutive admissions shows conclusively the need at all mental hospitals of a well-equipped treatment unit such as is provided here. In no fewer than 137 of the 164 admissions mental illness was associated with one or more of these abnormal physical conditions. Another investigation which promises to yield interesting results, especially if adequate forms are available, is a record of the weights of patients on admission and the variations in weight during the period of treatment correlated with changes of the mental condition.

The spacious lecture room in the admission hospital should prove a great asset in the teaching of nurses. Whilst recognizing the circumstances peculiar to this hospital where the largest unit is some distance from the admission wards, we would suggest that consideration should be given to the possibility of centralizing the teaching of probationer nurses. The centralization of this important function of the hospital would doubtless result in a higher standard of training, and incidentally, would save much of the time of the medical and nursing staff. We should like to see a better supply of models and charts for demonstration purposes at the new lecture room.

#### GLOUCESTER COUNTY AND CITY MENTAL HOSPITAL.

*January 29th, 1937.*

The period which has elapsed since our colleagues visited in March of last year has been one of steady progress in many directions at both branches of this hospital. A number of improvements suggested in the last report have been carried out and plans are being formulated to put others into execution. It is obvious that the Committee is alive to the many difficulties under which the hospital labours owing to the out of date nature of the buildings at Wotton ; the lack of proper accommodation for nursing staff and the lack of an admission hospital.

We are glad to hear that the Committee hope at a favourable opportunity to erect a nurses home. Presumably this will be at Coney Hill. The need for it is urgent. At present the nurses at that part of the hospital sleep in dormitories and the night staff are 9 in a room, the sitting-room space also is poor. The housing of the nurses at Wotton is also extremely inadequate and except for the room in which meals are taken there is no sitting-room accommodation whatever for either sisters or nurses. Pending better accommodation being provided we have suggested to Dr. Logan the possibility of a sitting room being contrived out of a large unused space outside the present dining room and adjoining the little service kitchen. This arrangement, which would be by no means ideal, would at any rate give nurses off duty a room in which they could be quiet.

Plans are being considered for the alteration and modernisation of certain wards at Wotton. One of these wards is male lower 4. Having visited this ward, we feel that by far the best solution would be to close it down as a ward altogether. The buildings after conversion might be suitable as workshops in the much needed expansion of occupation therapy. This ward, although it houses 33 patients by day, only has bed space for 11 by night. Were M 5 and M 6 altered in the way that has been done on the female side to the similar wards there extra day space would be provided. We have suggested to Dr. Logan a way in which the corridor of female lower 14 might be improved. The far-end could, we think, be made into a window bay and if all



the muffled glass in that end and elsewhere in the corridor were removed, this part of lower 14 would be entirely altered. We were glad to hear that one side room in this corridor which was in a bad state has been refloored in concrete. On the female side W 11 is in process of redecoration and new radiators are being installed; W 1 has just been redecorated and W 2 is next on the list. With regard to W 2 we hope that the kitchen, which is in a very bad state, will have its walls tiled half-way and a new plate drainer put in. Another radiator is needed in the corridor of this ward and there, as elsewhere at Wotton, we noticed that the wards were quite inadequately heated. The cloak-room accommodation and store-room space in many wards both at Wotton and Coney Hill are insufficient, but a good deal has been done during the past year to remedy this in some wards and we hope that further efforts will be made to deal with this problem in the near future. On the male side new patients are admitted to W 6 at Wotton. In this ward there were 65 patients at the time of our visit, 8 of whom were being nursed in bed. The other 57 patients have to use a wash-room for their daily ablutions which contains 4 small antiquated wash bowls provided only with running cold water. The introduction of modern porcelain wash basins with running hot and cold water elsewhere in this hospital recently leads us to hope that very shortly M 6 will be modernized in a similar manner.

In the last six months a most interesting venture has been started on the female side. Two hair-dressing shops have been opened, one at Wotton and the other at Coney Hill. They are equipped in the most modern manner and staffed by nurses who have experience in hair-dressing. Nearly 400 of the female patients have shampoos each week and quite a large proportion have their hair trimmed, waved or set. It is obvious to us, after having questioned numbers of the women patients how much this innovation is appreciated. The possibility of concentrating hair-cutting and shaving in barbers' shops on the male side will, we hope, receive consideration.

The patients on the whole are well catered for with regard to amusements. The profits from the canteen have been used in recent years to provide the recreation hall at Wotton with a talking-film apparatus and many of the wards in both parts of the hospital with wireless. Unfortunately a certain number of wards are still without the latter. At Coney Hill there is no cinema, but about 30 patients are brought down each week to Wotton for the cinema performance. The need for talking films at Coney Hill is obvious. We appreciate the acoustic difficulties of the hall, but feel that these could very probably be overcome.

In our tour of the wards we believe we have seen all the patients in residence; these number to-day 1,291—511 men and 780 women. Thirty-three men and 54 women are voluntary patients and 5 women are temporary patients. Two men are out on leave or on trial and the total on the statutory books is therefore 1,293. Fifty-two men, 39 of whom are in the Service or ex-Service group, and 40 women rank as private patients. The charge for these is from 25s. 8d. to 50s. per week, the charge for rate-aided patients being 21s. 7d. and the average weekly maintenance cost is 21s. 11d.

During 1936 the total direct admissions were 330; of these 113 came in as voluntary and 47 as temporary patients. These figures are, in our opinion, most satisfactory.

Day space is overcrowded by 91 on the male and 21 on the female side, whilst by night there is overcrowding on the female side by 4. Twenty-six male and 29 female out-county patients are to be removed by their local authorities during the course of the present year, a fact which should, we feel, make the suggested closing of male lower 4 the more feasible.

Forty-nine men enjoy parole beyond the estate and 17 men parole within the grounds, but only 2 women enjoy the larger privilege and none the more restricted.

The patients at this hospital are, we feel, kindly treated and carefully nursed and the absence of complaints was most noticeable as we visited the



wards. We were, however, struck by the large number in each ward without any occupation. Certain efforts are made here, but on a very limited scale, to treat the patients on occupational lines and an occupation officer who is employed part time does visit certain wards in both parts of the hospital each week. We feel, however, that much more could and ought to be done. We have made various suggestions to Dr. Logan which we hope it will be possible to adopt. It would be of great advantage if he and Dr. Smith and perhaps one or two interested members of the Committee were to visit one or two of the mental hospitals where occupation therapy is now well established; we have suggested one hospital in particular to Dr. Logan.

The appointment of a whole-time occupation officer and the training of some of the nurses—perhaps by their attendance at handicraft classes in Gloucester—would do much to develop the occupational treatment of patients here. Closely allied to the question of occupation therapy is that of physical training and we were glad to hear of the folk-dancing and drill classes which have been started. Yesterday afternoon we witnessed a group of women at Coney Hill being drilled by a male nurse with Army experience. We recognize this as being a start, but, as we explained to Dr. Logan, the therapeutic value of such exercises would be greatly increased if small classified groups of patients were given exercises by someone trained in the principles of physical training and of occupation therapy as applied to patients suffering from mental disorders.

New machinery, including washing machines and hydro-extractors, is to be installed in each of the laundries. At present some difficulty is experienced at Wotton in handling the weekly wash owing to the lack of patent washers and the calendar, which is of old-fashioned pattern, has to be supplemented by the steam-press. This prevents the latter machine from being used to press the male patients' suits after washing. The steam jet for disinfecting bins at Wotton should be fitted with a stem and nozzle above the level of the pedestal. We noticed that the room for sorting soiled linen—work done by the staff—is separated from the sanitary spur only by a wooden partition. If a door were put in this partition and a wash-hand basin with hot and cold water placed in the passage outside the w.c.'s the staff could wash their hands after the sorting. At present there is no convenience for this.

We would like to advocate the installation at Coney Hill of a water-softening plant. Much difficulty at both laundries is experienced owing to the hardness of the water.

The use of roller towels in the wards by several patients is undesirable and we recommend that each patient throughout the hospital should have his or her own hand towel.

In the infirmary wards the provision of softer pillows would be appreciated.

In the infirmary ward (female) at Coney Hill we think that the present arrangements for dealing with foul linen need amendment; an alternative situation for the bins was suggested which may be found convenient as well as more hygienic. The low proportion of certificated nurses in this ward makes precautions of this nature more necessary, but we think it would be desirable at least to increase the ratio of certificated or experienced nurses. In this ward 42 of the 64 patients are confined to bed and 24 are incontinent.

Full use of the laboratory is made for the more important routine investigations in relation to clinical diagnosis. Blood and faecal examinations for typhoid and dysentery and other infectious conditions are systematically carried out. The services, too, of the County laboratory and pathologist are available for special purposes.

Since the last visit there have been 2 fresh cases of enteric fever, both female patients, and 1 female nurse was also affected. Two men and 12 women suffered from bronchial pneumonia and 2 men and 5 women from lobar pneumonia.



There has been only one fresh case of tuberculosis. At the present time 1 man and 4 women are suffering from active pulmonary tuberculosis and 2 women from other forms of the same disease.

There have been 80 deaths, 42 men and 38 women. In 43 of these cases post mortem examinations were made—approximately 50 per cent.

Of the causes of death pneumonia (all forms 20 (25 per cent.), congestion of the lungs 10 (12·5 per cent.), heart disease 15 (18·6 per cent.) and senile decay 13 (16 per cent.) were the commonest. Cancer caused death in 3 cases and tuberculosis in 5.

The mortality rate for the year ending December 31st, 1936 was 7·6 per cent.—9·2 per cent. men and 6·5 per cent. women. No inquest has been held since the last visit.

Seven fractures, 6 of a more serious type, have occurred and in each case an X-ray examination was made. In 2 instances fracture was due to interference of one patient with another.

The nursing staff consists of 28 charge nurses, 160 ordinary nurses and 37 nurses on night duty, giving a total of 225 of whom 94 are male and 131 female nurses. Sixty-two per cent. of the male nurses are registered or certified as are 30 per cent. of the female nurses. Some increase of the night nursing staff is to be made as a result of a modification of the hours of duty. We discussed with Dr. Logan certain points in connection with the supervision of the nursing staff at night and we are glad to know that he is in agreement with our views.

We have examined the dietary and note that it is well varied and ample.

Dr. Logan is actively engaged in the work of mental clinics in addition to that of Child Guidance at the clinic at Cheltenham. The value of his work is reflected in the former case by the large number of cases admitted on a voluntary basis.

Dr. Logan has Dr. Smith as his deputy and as his assistant medical officers, Dr. Conway, Dr. Synnott and Dr. Jackson.

#### HANTS COUNTY MENTAL HOSPITAL.—1. KNOWLE, FAREHAM.

*February 12th, 1937.*

We have this morning concluded our visit to this hospital, and while we have been here we have seen much to interest us.

Since the visit of our colleagues in June last year, the central library has been opened, and on the score of convenience and arrangement, as well of appearance, it leaves nothing to be desired. This library is in charge of a patient who is responsible not only for the issue and return of books, but also for the cataloguing and arrangement of the volumes: he is entitled to great credit for his work.

In the admission hospital at Ravenswood House, a new X-ray apparatus of the most modern pattern has been installed and from negatives shown to us it was evident that very good use is being made of this important addition.

Ravenswood House was the subject of most favourable comment by our colleagues in their report on their visit last year, and we will only add that we also regard the general layout of the building, the equipment, the furnishing, and the nursing and administrative arrangements there as admirable.

The redecoration of the main building, the provision of urinals in the wards on the male side and the provision of good ward kitchens with hot plates are matters which have all been speeded up, and it is now hoped to complete this work in about half the time originally intended. Such of the work as has actually been completed is excellent, and we should particularly like to commend the bright and cheerful appearance of the wards which have been redecorated. Basins fitted with hot and cold water are being installed in the dormitories where sick patients are nursed, and hot water is to be provided in the lavatories as they are modernized.



Among the more important alterations and improvements in contemplation, we may mention the heating of the male and female blocks. When this has been done, it will be possible to take into use as occupational rooms, two spacious corridors which at present are too cold for this purpose.

There is at present an occupation room for women in the main building as well as a small one at Ravenswood House. It is proposed also to effect certain interior structural alterations in the blocks, and these, we understand, are at present the subject of correspondence with our Board.

There are to-day 1,117 patients residing in the hospital—501 men and 616 women: of this total 40 patients (18 men and 22 women) are voluntary patients. There are no temporary patients in residence, and only 3 (1 man and 2 women) were admitted as temporary patients during 1936.

These figures show a neglect of the provisions of Section 5 of the Mental Treatment Act, 1930, on the part of the general practitioners and relieving officers in the area served by the hospital which is deplorable, and we are glad to know that Dr. J. L. Jackson, the Medical Superintendent, has taken such further steps as are in his power to remind the general practitioners and relieving officers in the area of the relevant provisions of the Act.

During 1936, direct admissions numbered 218 (105 men and 113 women). Of this number 45 men and 49 women were voluntary and 1 man and 2 women were temporary patients, while the remainder were admitted under certificate. Sixteen patients (5 men and 11 women) were admitted on transfer, and during the same period 87 men and 86 women were discharged (47 male and 45 female voluntary patients, 1 male and 2 female temporary patients, and 39 male and 39 female certified patients). Forty men and 31 women died, including 1 male and 3 female voluntary patients and 1 female temporary patient.

The weekly maintenance charge for home patients is low, viz. 19s. 3d., and indeed the average weekly maintenance cost for all patients is only 19s. 11.2d.

In the course of our visit we believe we saw all the patients in residence, and we found them generally very contented with their lot, while appeals for liberty were not very numerous. Patients' clothing is satisfactory, and we were very glad to hear that the underclothing for women is being modernized, and that those patients able to appreciate the privilege are in future to be given a set of underclothing, specially marked, for their own use.

We learnt also with much pleasure that all working patients are given supper, and that, if they so desire, they need not go to bed until 9.15 p.m. These are privileges which we are certain are very much prized by the patients who enjoy them, and we could wish that similar privileges were accorded to working patients in many other mental hospitals.

Patients' recreations receive much attention, and indeed the recreation hall is in use for one kind of entertainment or another on five nights each week. There is a talking picture installation, dances are enjoyed, and a great deal of badminton is played in the evenings. On the male side, football at this time of the year is the most popular outdoor form of recreation.

The dormitories and day-rooms are well kept, and in good order, and in nearly every ward there is an adequate supply of ferns and other plants. An interesting feature of the wards where sick patients are nursed is the provision of rubber mattresses which are covered with a thin envelope of waterproof rubber sheeting—we were told that these have been found very satisfactory in use.

In the old isolation hospital 15 female patients who are typhoid carriers are accommodated, but although they are thus segregated from the rest of the patients, we were glad to know that they are permitted to attend all entertainments except dances. In this building a room is set apart for the accommodation of any patient suspected of suffering from an infectious disease.



The kitchen and laundry are in good order, but in the former we think that a fish fryer would prove to be a most useful addition. The dietary is good and varied, and an issue of fresh fruit is made weekly, while patients who are employed on the farm, in the garden, and in the kitchen receive a special allowance of cold meat for breakfast.

The mortality rate for 1936 was the low one of 6·3 per cent. Since the last visit there have been 49 deaths, the causes having been confirmed by post-mortem examination in about 66 per cent. of the cases. Almost all the deaths were due to cardio-vascular disease or pneumonia.

One male patient died from general paralysis of the insane. Patients suffering from this disorder are treated by induced malaria in a special ward, 12 being under treatment at present. In this connection it is worthy of note that routine Wasserman testing in the laboratory was recently the means of establishing the diagnosis in a voluntary patient whose mental symptoms had not given the clue to his disorder. The value of admission at an early stage and of active laboratory work is well illustrated by this case.

Two male patients died of tuberculosis, and there are now 7 male and 1 female patients under treatment for this illness. Recent laboratory testing of the milk from the hospital herd is proving useful, and the quality and purity of the milk supply is being improved.

Inquests were held on two patients, both of whom died from natural causes, an operation being performed on one in an attempt to save his life.

Epidemic illness since the last visit has included 53 cases of influenza, and one case each of pneumonia, erysipelas, and dysentery. The dysentery patient is believed to have acquired the infection before admission. Two male and three female patients have sustained fractures during the period under review, all but 1 (which followed a push from another patient) being due to accidental falls.

The patients in our opinion receive thoughtful medical attention. Those in bed at the time of our visit appeared to be carefully nursed, and the attention which had been given to the care of the skin and hands of some whom we particularly observed was very satisfactory.

The value of the laboratory work done by Miss Wade in co-operation with the doctors in charge of the patients concerned is we think very considerable. The Wasserman tests are carried out on all newly admitted patients and have now been done for all patients in the hospital. A large amount of laborious investigation in the search for carriers of intestinal infection has been one important cause of the lessened incidence of these disorders.

The touch with modern methods and views which is so useful in any hospital is maintained by visits paid by Miss Wade to other laboratories and teaching institutions.

Last June Dr. Hugh Astley Cooper was appointed Deputy Medical Superintendent of the hospital in succession to Dr. Shepherd, who received the appointment of Medical Superintendent at Chartham Mental Hospital. We congratulate Dr. Astley Cooper on his appointment and wish him every success in it.

To Dr. Jackson, the Medical Superintendent, and his medical staff, we desire to extend our thanks for the assistance given to us, and for the arrangements made for our comfort during our visit.

#### HANTS COUNTY MENTAL HOSPITALS.—2. PARK PREWETT.

*July 29th, 1937.*

There are at present resident in the hospital 1,429 patients, 641 males and 788 females. Of this total 51 (M. 25, F. 26) are voluntary patients, and there are 2 temporary patients, one of each sex.



During 1936, direct admissions numbered 300 (M. 141, F. 159) including 54 voluntary (M. 26, F. 28) and 7 (M. 1 and F. 6) temporary patients. Departures and discharges numbered 216 (M. 90, F. 126) and 85 patients (M. 37, F. 48) died.

It appears from these statistics that the advantages of early treatment in accordance with the provisions of the Mental Treatment Act, 1930, continue to be neglected in the area served by this hospital, and we hope that renewed efforts will be made to acquaint the general practitioners and relieving officers concerned with the provisions of the Act.

We are sorry to see that no patients are boarded out under Sections 26 or 57 of the Lunacy Act, 1890, and we trust that the Committee will give further attention to the possibility of boarding out suitable patients. We understand that this matter has in the past been considered by them, and we will say no more except to point out that whatever efforts may be made to make patients comfortable in an institution of this character, there is bound to be the absence of that home and family life which normally characterizes a private dwelling, humble though it may be.

Some of the wards we visited yesterday were, considering that the day was fine and sunny, unusually disturbed and noisy, a fact which we feel disposed to attribute in part to the lack of suitable occupation for many patients of regressed type. This matter is one to which we shall refer again in the course of this report.

It is, however, only fair to say that the patients on the whole appeared to be as content with their lot as their mental conditions allowed, and we saw much evidence indicative of kindly relationship existing between the patients and the medical and nursing staffs.

We received of course many appeals for liberty, in no instance from a patient fit for discharge, and we gave a large number of private and semi-private interviews. We received several complaints in connection with the dietary, and we think that some of them were not unreasonable.

From the dietary supplied to us we note that on three days in the week no second course is served for dinner, and on two of those days, namely on Tuesdays and Saturdays, the breakfasts are poor compared with those provided on other days in the week. It is unusual to-day to find a hospital where a second course is not served daily, and we consider that a regular weekly or bi-weekly issue of fresh fruit throughout the year would be very beneficial to the patients.

We thought that the male patients' clothing was generally satisfactory, and that of the women is being modernized in many respects, particularly so far as concerns underclothing, but in many cases the bad fitting of the frocks allowed articles of underclothing to be visible at the neck. We hope too that before long thread marking of clothing and linen may replace the existing method of marking by means of an ink stamp.

Much attention is paid to patients' amusements and recreations, and we are glad to record that talking-picture apparatus has now been installed in the recreation hall. Concerts are given from time to time, and there are dances each week. We had the pleasure of witnessing a dance in progress yesterday evening. The really excellent cricket ground also deserves special mention, and we are glad to know that some of the male patients are proficient enough to be included in the hospital cricket team.

Visitors are received by patients in the recreation hall, and as yesterday was one of the two weekly visiting days, we were able to see what arrangements are made in this connection. Many visitors bring with them articles of food in paper bags, and since plates are not provided, the food is consumed directly from the bags. At no great expense plates could be



provided and if table cloths (which could well be made in the occupation rooms) and a few flowers were placed on the tables, we feel sure that many visitors would get a better impression of the hospital than some of them possibly do at present.

We have been disappointed at the progress made in occupation therapy, and we cannot but feel that, while efforts to improve matters are clearly being made, a visit by Dr. Connolly, or a member of his medical staff, accompanied possibly by a senior nurse from the male and female sides, to one of those hospitals which have specialized in occupations would prove of real value. Very little indeed is at present done for those patients who are most in need of occupational treatment, namely the more degraded and introverted types, and attention is mainly directed towards occupying the patients who in fact need little encouragement to employ themselves. Until it is realized that few of even the worst patients are totally unemployable, it is unlikely that any real improvement in this department will be made.

The day-rooms and dormitories are in general in good order and well kept, and we saw with pleasure a generous supply of pot plants and cut flowers in every ward. The ward gardens on the male side are particularly attractive, and bright with flowers grown, we understand, by the patients themselves. By comparison those on the female side are dull and featureless. The hospital throughout is in good decorative order, and the day-rooms are light and airy.

In some of the villas the only heating available is from coal fires or stoves, and we feel sure that here patients must be very uncomfortably cold in winter. Dr. Connolly indeed has told us that these villas are in fact inadequately heated, and we are glad to know that the matter is receiving the attention of the Committee. Connected with this matter is the supply of hot water to ward lavatories and to the sick wards, and we hope that this question also will be considered by the Committee.

Nowhere did we find proper provision made for the storage of toothbrushes; some racks are provided but they are far too small, with the result that the unhygienic practice has grown up of carrying tooth brushes in coat pockets. We trust that this state of affairs will be remedied at once.

During our tour of the wards we saw a number of things which tended to show that there is less attention paid to matters connected with the comfort of patients, and in some instances with ward hygiene generally, than should be the case.

In many wards there are good lockers and chairs in the dormitories, but at night patients' clothing is rolled in bundles and thrust in racks: in some wards a proportion of the mattresses are too short for the beds: in the sick wards the bed tables supplied are of a pattern which catches the knees and is uncomfortable, and in consequence patients do not care to use them, while in these wards also there are too few feather pillows on stock, so that some acutely ill patients are without them; the meals of private patients accommodated in the main block are badly served and the food which should be hot is luke-warm or cold.

The general bathrooms are good, and are well-kept, but more mirrors should be fixed in the female room—there is one only at present—and here arrangements should be made for supplying clean water for washing patients' hair. A number of enamelled jugs would no doubt serve the purpose well.

The laundry is in good order, as is the large airy kitchen though in the latter we feel sure that the acquisition of a fish fryer is desirable.

The weekly maintenance charge, 19s. 10d. a week, is low, and the average cost is 19s. 3·8d. weekly.

The mortality rate for 1936 was 5·9 per cent. which is low by comparison with the figure of 6·8 per cent. for all mental hospitals over the same period.



Since the last visit there have been 113 deaths, post-mortem examinations having been carried out in 45, i.e., about 40 per cent. of the cases.

Tuberculosis was responsible for the deaths of 7 patients, and 13 (M. 7, F. 6) are now under treatment for this disorder. From figures given to us it appears, however, that 14 male and 11 female patients and 1 member of the staff have been attacked by tuberculosis since the last visit.

Inquests were held on 4 patients, 3 of whom died from a combination of physical disorder and accidental injury; the fourth died as the result of a suicidal act. These cases call for no comment.

Epidemic illness included chicken pox 2 cases, erysipelas 6 cases, and influenza 60 patients and 47 members of the staff. Dysentery has attacked 1 male and 2 female patients. One male patient bacteriologically diagnosed and 1 clinically suspect are now under treatment. The sluice room where the crockery for these patients is washed smelled offensively yesterday and is obviously in need of attention. Careful bacteriological investigation is maintained to check the spread of dysentery, but we feel that improvements in the patients' dietary would act in the same direction.

There has been a troublesome epidemic of diphtheria. The first case was on January 23rd, 1937, and the most recent on July 24th. In all, according to figures given to us, 5 female patients and 5 members of the female nursing staff have suffered; 3 recovering cases and 2 carriers are under treatment.

Here there is an unfortunate contrast between the careful bacteriological work on patients' contacts and carriers and the care in inoculation with the clinical and nursing measures adopted. We were distressed to find a visitor, a child about 5 years old, sitting on the knee of a carrier in the isolation hospital yesterday. While the fact that two mugs contained the toothbrushes for all 5 patients here indicates that serious revision of nursing standards is called for. No patients or staff here so far failed to make a satisfactory recovery from symptoms, and it is hoped that the measures taken will overcome the persistence of infectivity in the carrier.

During the period under review, 19 patients (M. 9, F. 10) sustained serious but non-fatal injuries, all involving fractures of bone; 5 of the cases were due to the action of other patients; 2 were due to self-injury, and the remainder were purely accidental. The nursing staff consists of 86 male charge and ordinary nurses (last year the figure given was 95) and of 81 female charge and ordinary nurses. We understand that the number of female nurses is maintained at its usual level in the face of great difficulty in obtaining suitable nurses by the employment of 5 nurses who were formerly on the staff here and who are now married to members of the male nursing staff.

Careful medical attention appears to us to be given to all the major problems of health, but we discussed with Dr. Connolly one or two points on which we think that the minor ailments and discomforts of some patients could with advantage receive more effective alleviation. Many times during our visit we received from patients expressions of their appreciation of the kindness and friendly interest shown to them by their doctors.

Active work is carried on in the laboratory on bio-chemical and bacteriological lines on clinical material from the wards, and on the water and milk supplies.

One of us had the pleasure this morning of meeting Lt.-Col. L. T. Goff, the Chairman of the Committee, and of discussing with him matters of interest in connection with the hospital.

Dr. V. L. Connolly, the Medical Superintendent, has the assistance of Dr. I. Atkin, the Deputy Medical Superintendent, of Dr. G. J. Bell, of Dr. T. Gilchrist, and of Dr. T. A. Smith.

To all these gentlemen we are indebted for the assistance and information they so readily gave us.



## HEREFORD COUNTY &amp; CITY MENTAL HOSPITAL.

*November 9th, 1937.*

During yesterday and to-day we have paid the annual visit of our Board to this hospital and to its private branch at Holme Lacy.

Dr. Fleming, who held the position of medical superintendent for nearly 6 years, resigned in June last to take up another appointment. He was succeeded by Dr. Burrows formerly a medical officer here. In the course of our visit we have had several opportunities of discussing the needs of the hospital with Dr. Burrows. We have found him keenly alive to its many problems and we are sure that he will make the best of conditions as they are at present and will be able to advise the Committee as to the relative urgency of the various improvements which are so needed.

Since the last visit the Committee have decided to build a new nurses' home. The plans are in an advanced state and it is hoped to commence building in the spring. When the home is complete a number of single rooms at present used as sleeping quarters by the nurses, mainly on the female side of the hospital, will be freed. This will provide an opportunity to improve ward accommodation. It will be possible to have ward clinical rooms—at present there is only one for the whole hospital—also to increase the present, somewhat inadequate, cloak-room and store-room space.

Owing to the amount of work needed at Holme Lacy during its early stages it has been unavoidable that the routine redecoration and repairs to the wards at Burghill should have fallen into arrear and many of the wards badly need re-painting and other work. We were glad to hear that these redecoration are now to be put in hand, and that a paint sprayer has recently been acquired as a time saving device. As the wards are re-painted the old-fashioned pictures are disappearing and are being replaced by a more artistic selection, frames for which are being made in the male occupation class. A matter which has struck us forcibly in our tour of the wards is the lack of comfortable furniture, particularly on the male side. The furniture at this hospital is below the standards we have found at many other mental hospitals.

We visited some wards rather late yesterday evening and we found the artificial lighting somewhat inadequate both in day-rooms and dormitories where patients are nursed in bed; in male 6 and female 2, are examples. In some places we thought globes would diffuse the light more than the present shades which tend to absorb it. After discussing the whole matter with the medical superintendent and the engineer; however, we feel that the only satisfactory solution will be for the generators to work longer hours during the winter months.

Another question in need of consideration is the modernization of the ward sanitary spurs. In only one of these is hot water available and in the wash rooms the wash basins are small and quite out of date. In such wards as male 3 and female 3 where a number of patients are always in bed, hot water has to be carried some distance to the dormitories; this could be prevented if basins with running hot and cold water were placed in these. The number of w.cs. to each ward is as a rule only 3 in this hospital and this provision appears inadequate in wards of between 50 and 60 patients. It is interesting to note that the only complaint we received from a patient during our visit related to this shortage of sanitary accommodation.

In a small hospital such as Burghill, particularly where there is some overcrowding, classification is always a difficulty. The effects of this are noticeable in such wards as male 4 and female 4—the turbulent wards—where the day space is restricted.

We visited the canteen the position of which has recently been changed. It is now housed in a large room and it is proposed to add tables and chairs so that patients and their friends can have refreshment. The idea is an excellent one and we wish it every success.



We have been much interested to see what is being done not only at Holme Lacy but also at Burghill with regard to occupation therapy. Dr. Burrow's plans are not yet fully formulated but we are confident from our discussion with him that he is proposing to tackle its organization on the right lines. A fully trained officer has been appointed and she is at present mainly engaged at Holme Lacy, where she has organized physical training and occupational crafts as part of a general scheme. At Burghill physical training is also to be started and classes for training the nursing staff in crafts are to be formed. The occupation officer, Miss Reid, will then with the assistance of the nurses, develop occupation treatment amongst the patients. Already a mixed class of over 50 is engaged in crafts in the recreation hall each morning, whilst in the afternoon 28 women work in the hall and a class of 10 men are engaged in another room.

Recently a room has been set apart on the female side for use as a hairdressing saloon. So far there has been no time to equip it suitably, but we are glad to hear that Dr. Burrows hopes to be able to do this and that already a local hairdresser has been engaged to visit twice weekly. This experiment should do much to improve the appearance of the women patients.

Of recent years a good deal has been done here to improve the female dress and the modern undergarments now in use are excellent. Steps have also been taken to raise the standard of the outergarments but the materials are still somewhat drab and we feel that a few bright colours for the younger patients might well be tried and that aprons should also be of brighter materials and more attractively made. The men's suits continue to suffer from the lack of any proper facilities for pressing them out after washing. It is not always appreciated that suits in a mental hospital are sent comparatively frequently to the laundry and unless a steam press is available in the tailors shop to press them out afterwards they present an untidy appearance.

Diet is arranged on a monthly rota and we were glad to observe that attention is given to varying the breakfasts as much as possible. The dinners might have more variety, we think, such dishes as sausages and mashed potatoes, liver and bacon, tripe and onions are popular and might well be tried here. For tea patients have bread and butter. On two days jam is added and on one day cake. We would like to see cake given more frequently and would suggest also that there should be a regular issue on one day a week at least of fresh fruit. At present fruit is only given when apples, plums or rhubarb are available. When there is a shortage of apples, for instance, bananas or oranges might well be substituted.

There are the names of 631 patients on the statutory books, 3 members of each sex are out on leave or on trial, leaving the number in residence 625. Of these 261 are men and 364 are women. Included in the women's total are the 65 women patients residing at Holme Lacy.

Of the patients at Burghill 23 men and 20 women rank as voluntary, 2 women as temporary patients and at Holme Lacy there are 28 voluntary and 2 temporary patients.

Upon the figures before us overcrowding exists only on the male side at night and amounts to 17 patients.

The weekly maintenance charge for rate-aided patients is 22s. 5½d. and for private patients from 24s. 6d. to 273s. The average weekly maintenance cost is 22s. 6·6d.

Twenty-six men, and 3 women enjoy parole beyond the estate at Burghill. At Holme Lacy 4 women have parole outside the estate and 10 within the grounds.

The present staff of nurses consists of 3 men and 12 women of charge rank, 29 male and 58 female ordinary nurses and 4 men and 16 women on night duty. Twelve women nurses are employed in nursing male patients. Seventeen men and 22 women are certificated or registered as mental nurses and 7 men and 11 women have passed the preliminary examination.



The death rate for 1936 was 5·7 per cent. Of the 74 cases of death during the period under review no fewer than 25 died of pneumonia and 24 of cardiovascular degeneration—two terminal conditions indicative of senility. In fact during the course of our visit we were impressed by the large number of elderly and the small proportion of young patients in residence.

Inquests have been held in 5 cases. In two instances the verdict attributed death to natural causes; in the other three the verdict in each case was "suicide whilst of unsound mind".

Eleven patients (male 4, female 7) have incurred more or less serious injuries. One man suffered from concussion and had a scalp wound by slipping accidentally. In all other cases a fracture was sustained but in 2 cases the injury was a minor one—fracture of a metacarpal bone. Treatment has produced good results in every case and none of the patients has any permanent disability.

During the last year the hospital has been comparatively free from zymotic diseases. At present there are two cases of chicken pox and one of erysipelas. We were glad to find that the facilities at the laundry for disinfecting clothing and bedding have been materially improved by the erection of a formalin chamber. We shall be interested to know whether this method of disinfecting will be found thoroughly efficient, especially as it is much simpler and less costly than other methods of disinfecting.

Two large rooms, adjacent to ward female 4 are allocated for the segregation of 7 women, who at some time have had typhoid fever, and therefore are rightly regarded as potential sources of infection. The provision for these cases leaves much to be desired. There are no indoor w.c.s. which they can use, and the only washing facilities are the bowls in the dormitory. We discussed at some length the unsatisfactory condition of the unit with the medical superintendent and his colleagues and various solutions were considered. If none of the smaller rooms adjacent to the unit can be made available we hope the Committee will consider the advisability of enclosing a small portion of the dormitory or day room so as to provide a small sanitary annexe and bathroom for these patients. Whilst recognizing that the patients at present in this unit are much retarded mentally and therefore not able to respond to their surroundings as normal people do we feel that the day-room should be re-decorated, better lighted at night and provided with a few comfortable chairs.

#### HERTS COUNTY MENTAL HOSPITAL.

March 10th, 1937.

The spirit of activity and progress which permeates the work of this hospital is shown by the changes and improvements which are steadily taking place in many departments. During our visit we were fortunate in having an opportunity of meeting the Chairman of the Visiting Committee—The Reverend Roland Smith—and of discussing with him many matters of interest connected with the present activities of the hospital and developments in contemplation.

During the year 1936 according to the statistics placed before us there were :—

	Voluntary.		Temporary.		Certified.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Direct Admissions ... ..	33	68	2	9	62	104	97	181	278
Departed or Discharged (excluding transfers) ...	29	65	—	1	45	47	74	113	187
Of whom had recovered	10	25	—	—	33	31	43	56	99

From the above figures it is gratifying to observe that the advantages to be gained from the Mental Treatment Act (1930) continue to be appreciated in so much as 33 men and 68 women were received on a voluntary basis out



of a total of 278 direct admissions. We note that approximately 40 per cent. of the latter came direct to the hospital from their own homes.

A visitor to this hospital cannot fail to be struck by the excellent work which is being done at the St. Albans Nerve Clinic which comprises the out-patient department of the St. Albans and Mid-Herts Hospital and their treatment centre at Hill End Hospital itself. At St. Albans Hospital a weekly session is held on Thursdays but work there is mainly confined to diagnosis and disposal, psycho-therapeutic treatment for adult out-patients and child guidance work being carried out at Hill End where attendance by appointment is the general rule. The medical staff at the treatment centre is a strong one and includes, in addition to certain of the medical officers of the hospital who take part, 4 psycho-therapists in outside practice. In addition, 4 psychiatric social workers are employed, 2 of whom hold bursaries, and a psychologist. As some indication of the way the work of the out-patient department is developing we may mention that the total attendances in 1936 numbered 1,537 (as against 852 in 1935), while new cases seen at the treatment centre increased from 29 to 68. With the increased number of social workers now available it has been found possible to visit the homes of all patients (including in-patients) where such a course is considered desirable, and to undertake follow-up work after discharge.

Two useful pamphlets have been prepared by the Medical Superintendent. One of these provides much information as to the work and amenities of the hospital which would be of interest to relatives, while the other is intended primarily for the information of the general practitioners in the area as to the procedure for securing in-patient treatment. We feel that wide distribution of the former of these pamphlets, which is already we understand in the hands of the relieving officers, should be of great service in indicating to relatives the very varied nature of the activities of the hospital and the methods of treatment available; we hope therefore that dissemination of it will be actively encouraged.

There are on the statutory books the names of 1,126 patients (390 M. 736 F.) of whom 95 (38 M. 57 F.) are voluntary and 2 temporary. All these patients were in residence with the exception of 5 who were away either on long leave or trial.

There are 93 private patients and 39 of these are of the service or ex-service class. The weekly maintenance charge per head for these patients varies between 3ls. 6d. and 63s.; the weekly charge for the "home" patients being 27s. 5d.

The general scheme of re-conditioning and redecoration of the hospital wards is nearing completion and there now remain only 2 blocks, consisting of 2 male and 2 female wards, to be finished. These wards which are at present dismantled will be completed for occupation, we understand, within the next 3 months. In the meantime some of the other wards, more particularly on the male side, are rather overcrowded but under normal circumstances this overcrowding and its consequent handicaps will disappear. At present vacant beds for some 90 patients (45 male 45 female) are retained.

We were gratified to hear of the decision to erect an admission hospital for male patients, the plans for this new building are now under discussion.

The general condition of the wards—with the exception of one or two on the male side referred to below, was satisfactory and we were impressed with the decorations, furnishing and general standard of comfort afforded in the new villas. During the past year work on the remodelling of the heating system throughout the hospital, involving a change-over from steam to hot-water heating, has been continued, and improvement of the system of supply of hot water to the wards has enabled hot taps to be added in all the ablution rooms, and hot plates to be installed in the ward kitchens. This latter innovation, together with new trolleys for transport of food from the central kitchens to the wards, ensures the food being served in a properly



heated condition. Other useful work undertaken during the year includes the tar paving of all roads and paths within the hospital grounds and provision of a hard tennis court for the staff.

During our tour of the wards it struck us that facilities for obtaining boiling water for purposes, such as fomentations and sterilizing instruments in the infirmary wards, and making tea in the better conducted wards, would be advantageous. We venture to suggest that some provision of this nature should be extended to F and G blocks.

In the course of our visit we were much impressed with the new viewing room where much good taste and forethought were noticeable in its appropriate furnishings and decorations. We were interested to hear that among the improvements contemplated in the hospital is that of a hair-dressing saloon which is shortly to be inaugurated on the female side. At "Highfield House," which possesses a large and attractive garden, some 16 private lady patients at present reside. Dr. Kimber informed us that central heating is shortly to be installed and that, after that work is completed, attention is to be given to the redecorations of some of the rooms. This will be an improvement and add greatly to the comfort of the patients. We hope that when the redecoration of the dormitories is under discussion consideration will also be given to providing additional furniture in the upstairs rooms with a view to enhancing their comfort as far as possible.

The occupational therapy departments continue to serve their useful function in the treatment of selected patients as well as that of providing a training centre for nurses. The latter, during their training, spend 2 months in these departments so that some of them at least should become sufficiently expert to introduce similar handicrafts into their wards under the direction and general supervision of the instructor. The need for extension of occupations into the wards is, we know, appreciated and we hope that as a therapeutic agent of major importance it will therefore receive special attention in the course of the year and that a scheme of development will be undertaken.

Much attention is paid to the arrangement of indoor recreations for the patients, including the library which has been mentioned in previous entries. A recent improvement in this direction is the setting aside of a room, formerly used for visiting purposes, as a club room where patients meet three times a week between tea and supper. Dr. Kimber proposes to develop the type of entertainment, such as ward parties, concert parties, etc., in which patients and staff can take part, believing that the contribution which the patient is thereby enabled to make to the general benefit of the hospital, or his particular wards, has considerable resocializing value. Weekly dances are held but the hospital does not possess a cinema.

One of us paid a visit to the farm where the milking arrangements and facilities generally appeared such as to ensure a supply of clean milk. New sterilizing equipment has recently been added here and a range of new piggeries erected.

An excellent new laundry with modern equipment and special arrangements for dealing with foul and infected linen has greatly enhanced the facilities for maintaining the standard of ward hygiene—in so far as that is dependent on an adequate supply of clean linen and bedding—at a high level. We noted with pleasure that throughout the female wards full advantage is being taken of such facilities, but on the male side, in one or two wards, there is room for improvement in this direction coupled with a better understanding of the special hygiene needs associated with the management of special types of patients in these particular wards. We realize that certain of the wards are going through a transition process (following general ward redecoration and classification) during which their equipment has not yet reached its full complement, and we are sure that any deficiencies in this direction will soon be rectified. Individual face towels would be an improvement, we think, on the present system. As a



detail worthy of attention we would suggest that a vertical steam jet of suitable height should be fitted for the cleansing of bins, in addition to the useful hand operated jet now provided. Some of the bins now in use might very well be replaced by new ones.

In our observation of the nursing arrangements we noted those made for X-ray examinations by means of a portable apparatus conveyed by motor van which we saw actually in use at the time of our visit. This is a very convenient arrangement and the hospital is fortunate in having such a service readily available.

Adjacent to the female infirmary a small sick ward has been provided for female nurses and the accommodation herein provided is very attractive indeed. A small verandah associated with this unit is an asset whose value is impaired by the presence of a patients' shelter immediately in front of it. There is no doubt that this should be removed and a low hedge planted to separate the nurses' section of garden from that of the patients.

The nursing staff consists of 76 male nurses and 114 female of whom 46 and 28 per cent. respectively hold the R.M.P.A. certificate. We hope this figure will be improved upon as new nurses present themselves for examination. Of the above number 7 and 16 respectively rank as charge, 63 and 84 as ordinary nurses, the remainder, 6 male and 14 female, being available for duty by night. We are glad to hear that certain changes contemplated will improve further the classification of patients accommodated in the sick units as well as increase the number of nurses on duty therein at night.

Eight-one female and 13 male patients suffered from influenza during January, but apart from this there have only been 2 cases of infectious disease, namely, one of varicella affecting a female patient and one of enteric in a female nurse. It will be seen, therefore, that during the year that has elapsed since the last visit the health of the hospital's residents has been remarkably good. On the day of our visit the number of patients in bed was 68 men and 99 women, that is 17·4 and 13·4 per cent. of each sex.

For the year 1936 the mortality rate per cent. was 8 for the men and 7 for the women, the average number of patients in residence being 369 men and 695 women. Since the last visit the deaths have numbered 76, of whom 47 were of women. Post-mortem examinations were made in 67 per cent. of these cases. Of the causes of death the commonest was heart disease—42 cases—i.e., 55 per cent. of the total.

Four inquests were held in which verdicts of death "from suicide whilst of unsound mind" in one case, by "misadventure" in two, and from "natural causes" in one, were recorded.

Of 5 fractures which have occurred during the same period 3 involved the upper limb, and all but one were sustained when the patients, being of an advanced age, were being nursed in bed.

The laboratory is likely to be extended in the near future. Apart from routine examinations the only investigation of note being carried out at the time of our visit was that of the bromide content of the blood in cases where clinical symptoms, generally those of the confusional states, suggested that the medication by this sedative, prior to admission, has had some association with the present mental condition. This investigation will be carried out over a long period and the findings, it is anticipated, will be corroborative of similar work done elsewhere.

We have examined the dietary and note that, apart from porridge, no extra is supplied for breakfast although, on the other hand, supper is supplied consisting of soup or pudding or cocoa and cake. Dinner is a substantial meal and those dinners we saw served were palatably prepared.

Dr. Kimber, the medical superintendent, has to assist him Dr. Roberts as deputy, and as assistant medical officers Dr. Bushe, Dr. Webster and Dr. Jacobs. In addition he has, as house physicians, Dr. Moody and Dr. Methven.



## KENT COUNTY MENTAL HOSPITALS.—1. BARMING HEATH.

*April 21st, 1937.*

We have to-day completed our visit to the hospital, and we have found much to interest us. We have received every assistance from Dr. Allen Hancock, the medical superintendent, from Dr. Forsythe, the deputy medical superintendent, and from the other members of the medical staff, as well as from the matron, Miss Macaulay, and the head male nurse, Mr. Mosses, and we desire to thank them.

There are to-day 2,030 patients (M 806, F. 1,224) resident in the hospital : of this total 48 (M 35, and F. 13) are voluntary patients, and 5 females are temporary patients.

During 1936 direct admissions numbered 468 (M. 211, F. 257), including no fewer than 125 voluntary (M. 67, F. 58) patients and 6 temporary patients (3 of either sex). These figures show that while certain of the advantages of the Mental Treatment Act are appreciated in the area served by the hospital, those of section 5 of that Act are still neglected by many of the general practitioners and relieving officers in West Kent.

During the same period, discharges numbered 288 (M. 131, F. 157), of whom 160 were regarded as recovered (M. 73, F. 87), while of this total 108 (M. 51, F. 57) were voluntary patients. Thirty-one patients in all were granted money allowances, and 177 (M. 78, F. 99) were allowed out on long leave or trial. During 1936, 98 patients (M. 35, F. 63) died.

We are sorry to observe that no patients are boarded out under sections 26 or 57 of the Lunacy Act, 1890, and hope that this matter is one which will in due course receive from the Committee the consideration which it deserves, since it provides a possible means of freeing beds urgently required for patients suffering from acute mental illness, or alternatively of relieving to some extent at least the overcrowding in the hospital. There are quite certainly a number of patients in the hospital who, though they are unfitted for discharge, are quite fit for the greater measure of freedom which they would enjoy if they could be boarded out.

There is at present deficiency of accommodation to the extent of 87 on the female side by day and of 54 by night. On the male side the deficiency is 61 by night, but by day there is a small excess of accommodation.

The new admission hospital and convalescent villas, now in course of construction, will no doubt do something to relieve the situation, but they will not eliminate the problem of overcrowding, which will, we fear, give the Committee anxiety for some years to come.

Since the last visit of our colleagues, hot water service has been furnished to all lavatory basins in the additional building and male ward 11 has been redecorated throughout.

At present, in addition to the erection of the admission hospital and villas, verandahs are being built at female Ward 10, the staircases in the new building are being redecorated, and bakelite seats are being fitted to w.c.s in all the wards.

We saw, in the course of our visit, all the patients in residence, and we spoke to all those who wished to have conversation with us. Several private interviews were given. Except on the score of detention, we received no complaints, and indeed the patients here are almost without exception as happy as their mental conditions permit. A reasonable latitude is allowed, and this together with the excellent work which is done in connection with occupation therapy, to which more detailed reference will be made later, no doubt accounts for much of the pleasant, friendly, and homely atmosphere which prevails throughout the hospital.

The patients were quiet and orderly, and neatly dressed. The men's clothing is fitted for each patient, and there is a fairly good variety of pattern and colour for such garments as shirts and collars. We should, however, like to see some of the younger men provided with flannel trousers and



tweed jackets for summer wear, and feel sure that in very many cases they would be more comfortably clad than is the case at present. The women's clothing is varied and pleasing, but much of the underclothing supplied is not of a kind now worn by the general public, and we hope that the question of providing suitable woven or lock-knit undergarments of modern pattern, instead of the flannel or flannelette garments now issued, may be favourably considered in the near future. We were very glad to learn that all clothing, and indeed all the hospital linen, is thread-marked, and not stamped, as is still the practice unfortunately in so many hospitals.

Patients' recreations receive much attention. On the male side there is cricket and football at the appropriate seasons, the game of bowls is popular and both male and female patients enjoy a dance weekly, while in addition there is each week either a concert or other entertainment or a talking picture performance.

The dormitories and day-rooms are generally in very good order everywhere in the hospital, and we have been particularly struck by the attractive display of cut flowers and pot plants throughout the wards. In every ward there is an electric plate warmer and a stove for boiling water, and we are glad to note that with few exceptions, the patients are provided with cups and saucers and glass tumblers.

In the dormitories we should like to see the existing wooden commodes replaced by others of more modern construction, preferably of enamelled or stainless metal with bakelite seats, and we consider that the present arrangements for sterilizing bed pans and urine bottles should be improved.

We think also that the supply of hand towels in the wards should be augmented, the allowance of one towel weekly for each patient being insufficient.

Storage space for clothing, and for patients' private possessions, is very small almost everywhere, but we realize the difficulty of making better provision in many of the buildings. Throughout the hospital an admirable new type of poison cupboard is being introduced, and we were interested to see that each poison container is labelled with a gummed slip on which is printed the appropriate antidote. Different shaped and coloured containers are used for the various poisons in use.

Case sheets are kept in individual folios in the wards, and in every ward there is a clinical room.

There is an adequate stock of books in each ward frequently changed, and the library, which is in charge of the Chaplain, who has the assistance of a patient, contains some 4,000 volumes. The hospital has no canteen, but we were assured that the existing arrangement whereby articles required by patients are obtained from shops not far from the hospital gates is quite satisfactory. We do not, however, feel that this is, or can be, a real substitute for a hospital canteen, open to patients for several hours daily, and we hope that before long the matter will be considered. Three hundred and forty-five patients enjoy parole, but only 130 are allowed beyond the estate, and though this figure is proportionately high, it is clear that a very large number of patients are unable to do their shopping except through members of the nursing staff or other patients.

We found the kitchen in good order generally, but brushes of distinctive shape or distinctively marked should be used, and kept separately, for scrubbing floors and tables.

The nursing staff comprises

								Male.	Female.
Sub-Officers	...	...	...	...	...	...	...	4	8
Charge	...	...	...	...	...	...	...	12	17
Ordinary	...	...	...	...	...	...	...	71	104
Night	...	...	...	...	...	...	...	14	23

One hundred and fourteen nurses (M. 61, F. 53) are certificated or registered as mental nurses and 49 (M. 11, F. 38) have passed the preliminary examination.



There is an excellent nurses' home, attractively furnished and very well equipped, and indeed the only amenity lacking appears to be a room where nurses could do such small washing and ironing as they might wish. There is a good lecture room, in charge of the Sister Tutor, with a first rate collection of models, and an adequate library.

Occupation therapy is extremely well organized in the hospital, and remarkably few patients are totally unemployed. The system in operation involves the training of the nursing staff by skilled technicians, and it is the nursing staff which is responsible for the training and supervision of the patients. In addition to occupation centres on either side of the hospital, there are several occupation rooms in the different units, and a good deal of work is done in the wards. It is impossible even to summarize here the many different forms of occupation practised, but we have been particularly glad to note that much attention is paid to the needs of the more degraded and introverted patients, and also that only those patients whose names appear on a nominal roll for each ward are permitted to be employed in ward work. In every case the requirements of the individual patient having regard to his or her physical and mental state are considered before an occupation is allotted.

In addition physical training classes have been started on both sides of the hospital, and they are making most encouraging progress.

This hospital must be one of the first in the country to have organized and trained first-aid and gas-decontamination squads, recruited respectively from the female and male nursing staffs, for use in case of emergency in the unhappy event of war. Yesterday we witnessed with great interest a demonstration by these squads, and to-day we saw the rooms in which the equipment etc., is stored. The organization and training is under the direct supervision of Dr. T. R. Forsythe, the deputy medical superintendent, and it is satisfactory to know that there is in being an efficient unit capable of rapid expansion if the need should arise.

The patients' dietary is generous and well-varied, and we are glad to know that fresh fruit is regularly issued.

Yesterday the proportion of patients under treatment in bed was about 8 per cent. of the men and 9.6 per cent. of the women. In the admission wards the spacing of the beds was much less crowded than in the wards for sick and frail or senile patients.

Apart from outbreaks of influenza early this year and dysentery last December there has been little illness of an infectious character; 19 cases of dysentery of the Sonne type, all of whom recovered, occurred on the women's side between December 4th and the 31st, 9 of the cases having arisen in ward 18, 3 each in wards 7 and 9, and the others in wards 10, 11, 12, and 1, where the first case was observed.

The establishment of a laboratory, and the appointment of an assistant therein, has proved of considerable value in the investigations which were made into this infection. The hospital is visited weekly by the consulting pathologist.

Influenza affected 182 patients (M. 38, F. 144) and 27 of the staff on the female side. One nurse and 1 woman patient had diphtheria, and so far this year 3 men and 6 women patients have suffered from erysipelas.

At present 4 men and 8 women are under treatment for tuberculosis: the women are segregated under outdoor conditions at Farm Villa, but 2 open male cases are at the moment in bed in the solarium with patients suffering from other complaints, and we trust that means may be found for treating them apart from the others.

Patients' breakfasts are served at 8 a.m.; in some wards we learn that patients rise as early as 5 a.m. and in others at 5.30 a.m. and that their ablutions are undertaken by the night nurse before the day nurses arrive at 6 a.m. In the dormitory of ward 10 on the female side, where some 27 patients are accommodated, the morning ablutions are carried out by the



night nurse with a basin and ewer at a table, the water being carried from taps in an adjacent room. We would suggest the desirability of leaving patients in bed until later in the morning, when the day staff has arrived on duty.

In the 8 months under review casualties have occurred to 3 men and 6 women involving fracture—the ages of the patients ranged between 15 and 66. Four of these casualties were due to the action of other patients, 3 to accidental slips, and 2 to falls in fits.

Inquests have been held on the deaths of 1 man, who died from disease of the lungs resulting from gunshot wounds received in 1916, and on 3 women, 1 of whom died after drinking poison, another from drowning in the sea while on leave from the hospital, and another from natural causes. During the year 1936 the death rate was 49 per 1,000, a lower figure than the average of 68 for all public mental hospitals; 80 patients have died since the last visit, and post mortem examinations have been carried out in as many as 73 cases. Cardio-vascular diseases were the cause of 20 deaths, pneumonia of 15, and tuberculosis of 8. Five patients have died of influenza.

It would be well to make occasional bacteriological tests of the efficiency of the steam disinfecter adjacent to the foul laundry, which, we understand, is operated by a simple pressure process up to 8 lbs. without any alternating vacuum. We are glad to hear that the installation of a sterilizer for the milking utensils at the farm is contemplated.

#### KENT COUNTY MENTAL HOSPITALS.—2. CHARTHAM DOWN.

*October 15th, 1937.*

We have spent yesterday and the previous afternoon in visiting this hospital on behalf of our Board and are glad to record our appreciation of its well-ordered administration, its particularly clean condition and the kindly consideration shown, wherever possible, to the wishes of individual patients.

The recently completed admirable extension to the nurses' home will afford very pleasing accommodation and will release ward space, for the better provision of clinical rooms, as well as kitchen space for dealing more especially with the requisite thawing of meat to which reference is made below.

The renewal of the heating plant of the older wards is at present in progress and the improvement of ward gardens has been taken in hand. It was interesting also to see the several gardens which groups of patients on the men's side have cultivated just outside their own wards. We thought that in one ward at least some addition might be made to the number of easy chairs. It would be a hygienic safeguard to paint in a light colour the woodwork of the w.c.'s in wards where many patients are faulty in habits.

Two wards on each side as well as a villa for women are managed on the open door principle.

It would probably be a convenience to patients and their visitors if a few small tables could be provided in the concert hall at which they might take refreshments together. The newly established canteen, adjacent to this hall, is much patronized by the patients; it is open for about 2 hours on 3 afternoons of the week.

A hairdresser has recently been appointed to attend daily on the women's side and will take up her duties next week. A room will presently be equipped for this desirable service.

The clothing of the patients is tidy and well-fitting. Modern kinds of undergarments are taking the place gradually of the older and less comfortable materials. We were glad to note that cotton pants are issued to the men; night shirts for them, however, are not yet in general use beyond certain wards. We should like to see more use made of the bedjackets with which men's sick wards have been supplied. Arrangements have been made



for the issue of a clean hand towel daily to each patient, but perusal of the laundry lists in some wards indicated that the numbers recorded would suffice for about 2 only each week.

The minced meat which we saw served for the patients' dinner yesterday was well cooked; we discussed the possibility of making a few variations in its flavour, more especially for those patients who take it in place of ordinary meat. Several complaints were received as to the hardness of the meat served on other days and as to the lack of fresh fruit and vegetables as well as the frequent appearance of dried peas or beans on the menu. On 3 or 4 days a week there is no second course, and the 3 weeks' dietary produced to us showed that cold roast meat is served on each Sunday and boiled meat on each Monday during these weeks. We are glad to know that the cooking arrangements will be revised and that the entire question of the dietary is about to receive consideration with a view to improvement in the details mentioned.

The statistics supplied to us show that of the 675 direct admissions since January 1st, 1936, to date, 24·6 per cent. were voluntary and as many as 7·1 per cent. were temporary. During this period 416 patients have left the hospital, of whom 250 had recovered, a substantial and gratifying proportion.

Of the 110 certified patients who were allowed out on long leave or trial during 1936, 18 received money allowances.

The numbers of patients at present on the statutory books are :—

				Voluntary.	Temporary.	Certified.	Totals.
Males	...	...	...	27	3	655	685
Females	...	...	...	17	2	802	821
				—	—	—	—
				44	5	1,457	1,506
				—	—	—	—

Of the above 6 men and 10 women are boarded out under Section 57 of the Lunacy Act, 1890, and 5 men and 11 women as well as 1 female temporary patient, are at present away on long leave or trial.

The total accommodation in the hospital is calculated to be :—

By day 638 males, 624 females, total 1,262, and by night 708 males, 816 females, total 1,524.

On this basis the numbers on the statutory books involve an overcrowding by day of 47 on the men's and of 197 on the women's side, and by night of 5 on the women's side, the men's wards showing an excess of 23 places by night.

In addition to the usual physical examination, newly admitted patients have the benefit of examination by the dental surgeon and by the consultant surgeon for diseases of the ear, nose and throat. Laboratory tests of serum and of excreta are also carried out.

During the course of our visit we have seen a considerable number of edentulous patients. We are glad to know that dentures are supplied in some cases, and we hope this provision may be extended. While not suggesting its restriction to patients who occupy themselves usefully, such patients may perhaps have some prior consideration.

Treatment by the use of handicrafts has made an excellent beginning; the patients are well selected from among those who are dull and would be otherwise unemployed and the men and women who improve mentally in this department are transferred to others where they are able to assist usefully therein. There are, however, very many more patients, of each sex, who might profit by this form of treatment, the work being restricted at present by lack of space and particularly by lack of staff familiar with the treatment. We have discussed these points with the Medical Superintendent and trust that steps will be taken to make the fullest use of opportunities for teaching members of the staff to apply the use of occupation in advancing treatment.

We have seen admirable classes in physical training for women patients; they are taken once a week by a visiting teacher, who holds a diploma of the Chelsea College of Physical Education, and who attends with her own pianist.



On other days a member of the nursing staff conducts the class. It was most pleasing to see the response of many lethargic patients to the exercises. We hope that regular physical training will also be organized for male patients.

Parole beyond the estate is granted to 52 men and to 72 women patients and parole within the grounds to 92 men.

We have heard with great interest of the scheme for the adoption of individual Dover patients having no friends by residents in that town who visit monthly and send parcels. This group of patients has also been entertained in Dover.

The death rate, per thousand residents, for the year 1936 was 69, approximately the average rate for the public mental hospitals. The number of deaths since the last visit, about a year ago, has been 118; post-mortem examinations have been carried out in 52 cases.

Five inquests have been held, one on the case of an epileptic patient who was found drowned after escaping, on 1 dying from epilepsy and 2 from cardio vascular disease, associated with volvulus in one case, fragilitas ossium in another, the fifth case was that of a patient whose death followed accidental fracture of the femur.

During the period under review 16 patients have died from influenza out of a total of 239 who were attacked by this disorder. It also attacked 37 members of the staff. There has been no other epidemic illness.

Deaths from general paralysis numbered 8. Treatment for this malady by sulphosin is still in use. Five patients (3 males and 2 females) have died of tuberculosis and 7 men and 3 women are at present under treatment.

Casualties since the last visit include 2 serious wounds self inflicted, and 1 less serious, caused by a blow from another patient; 3 men and 8 women have sustained fractures of which 3 were due to falls in epileptic fits, 1 to a quarrel between patients, 2 to unknown causes and 5 to accidental falls.

The social worker sees all newly admitted patients who are considered well enough for interview. She also visits their relatives and the relatives of patients who are about to be discharged and attends the out-patient clinics. Some 500 visits are thus paid annually. From our own observation of her reports and from information given to us by Dr. Shepherd we are satisfied that this service is of great value in facilitating the treatment of patients and in providing useful co-operation between the relatives of patients and those who undertake the medical and nursing care here.

The out-patient clinic in Canterbury continues to do useful work. The first day of our visit coincided with the opening of a clinic at Margate. We were interested to hear from the Medical Superintendent of the visits paid by him to public assistance institutions in East Kent.

We have formed the opinion that the nursing is of a high standard. The Matron, 3 of her assistants and a charge nurse are doubly trained and several other members of this staff are now training or about to commence training in general nursing.

The numbers of charge and ordinary nurses are 84 men, of whom 8 were on night duty, and 123 women of whom 17 were on night duty. Of the male nursing staff, 78.5 per cent. and of the female staff 29.2 per cent. are certificated as mental nurses.

The members of the medical staff who accompanied us during our visit showed an intimate knowledge of the cases of their patients.

It has been our very good fortune to meet the members of the Committee of Visitors this morning and to learn of their deep concern in the progress of mental medicine and the welfare and recovery of the patients under their charge.

We are much indebted for the particulars which have been so readily supplied to us by the staff of the hospital.



## LANCASHIRE MENTAL HOSPITALS.—1. LANCASTER.

*February 16th, 1937.*

We have to-day concluded our visit to this hospital, and we desire to express our thanks to Dr. R. P. Sephton, the Medical Superintendent, to Dr. J. D. Silverston, the Deputy Medical Superintendent, and to the other members of the medical staff for the assistance they have given us.

There are at present 2,937 patients (1,016 men and 1,921 women) resident in the hospital. Of this total 8 men and 10 women are voluntary patients, while one woman is a temporary patient. Overcrowding therefore has become even more serious than it was 12 months ago, there being on the female side a deficiency of accommodation to the extent of 171 by day and 75 by night. On the male side there is a deficiency of 95 by night, while by day there is a small excess of accommodation (29). This serious position will, it is hoped, be ameliorated when the temporary wards, one for 50 males and one for 50 females, are constructed, but even so, there will still remain a large deficiency of day space for female patients.

The number of patients received under sections 1 and 5 of the Mental Treatment Act, 1930, continues to be very disappointing, but having regard to the nature of the accommodation available for rate-aided voluntary patients, we should not expect any real improvement in the figures until the projected admission hospital has been built. At the same time we are sorry indeed to see that the general practitioners and relieving officers in the area served by the hospital so persistently neglect the provisions of section 5 of the Act: that this neglect exists is borne out by the fact that puerperal cases are normally admitted to the hospital under certificate.

During 1936, direct admissions totalled 462 (153 M., 309 F.). Of these only 6 men and 11 women were admitted as voluntary patients, while no temporary patients at all were admitted. During the same period 245 patients were discharged, including 2 men and 13 women who were voluntary patients; 176 patients died (64 men and 112 women).

Fourteen patients (4 men and 10 women) were allowed out on long leave or trial, and in 21 cases (6 men and 15 women), patients who have left the hospital were granted money allowances.

We have seen in the course of our visit all the patients in residence, and we had conversation with all who desired to speak with us. Several patients asked for and were given private interviews. We found the patients generally quiet and orderly, and as contented with their lot as their mental condition allowed, and as the overcrowded condition of many of the day rooms permitted. The clothing is on the whole satisfactory, and we were glad to see that the underclothing in the case of the younger female patients is being modernized. In their report on their visit last year, our colleagues expressed the hope that a pantograph machine for thread-marking clothing might be purchased, so as to obviate the existing unsightly and destructive method of stamp-marking. We understand that the question has received consideration but that it was feared that extra staff would be required if thread-marking were adopted. We much hope that the matter will receive further consideration, as the machines can be operated by any patient capable of working an ordinary sewing machine, and indeed, so far as we are aware, they are so operated in those hospitals which have abandoned stamp- for thread-marking. We hope too that it may be found possible to provide a supply of bed jackets of a modern type for those female patients who are in bed.

Patients' dietary, which is on a three-weekly basis, is generous and well varied, but we consider that a regular issue of fresh fruit should be made to every patient weekly.

Occupational treatment has made little progress since last year, and while much good work is being done, there is scope for much extension, more particularly in the case of the more degraded patients, far too many of whom



are entirely unoccupied. We reiterate the hope that the medical superintendent or his deputy may be able to find time to visit a hospital where this form of treatment is organized on thoroughly sound lines.

A valuable addition since last year is the new central library under the supervision of the Rev. L. C. Davies, the chaplain and librarian. An admirable room, well lighted and equipped, has been provided, and there are in all some 10,000 volumes available for issue to patients. We were, however, struck by the fact that no patient is employed here, and we feel that useful occupation might well be found in this department for one or two patients. In addition useful employment might be found for selected patients in re-binding such books as it is desired to preserve, as well as in binding up magazines and illustrated periodicals. The latter are greatly appreciated by patients, and in particular by those to whom, for one reason or another, reading makes no appeal.

A "Keep-Fit" class for between 20 and 30 women has been started, and we hope that this form of activity may be extended. Physical training classes would be of great benefit to many patients on the male side also.

Having regard to the age of many of the buildings, the dormitories and day rooms are in general very well kept. New ranges of lavatory basins have been installed in 7 wards, while in 5 wards fixed wash-basins have been provided. In 6 wards re-decoration has been carried out, and another ward is at present undergoing treatment.

Much work, however, remains to be done, and in particular the modernization of the sanitary annexes proceeds very slowly. This is so urgent a matter that we earnestly hope that the necessary work will be pressed forward with as little delay as possible. In many wards w.c. accommodation is seriously deficient in quantity, and obsolete and insanitary in character.

We were somewhat perturbed during our tour of the wards by the slackness shown almost everywhere with regard to the special cards in the case of patients with suicidal tendencies. In some cases the responsible nurse had signed the cards, but did not know the patients to whom the cards related. In others the cards had not been signed at all by the nurse responsible. And we were informed that in the case where a nurse, having left a ward and having been employed for some time in a different ward, returned to duty in the original ward, that nurse did not again sign the special cards. This state of affairs is clearly unsatisfactory, and we trust that it will receive attention.

The laundry is in very good order, and we understand that the provision of additional machinery to meet probable future demands is in fact receiving the attention of the Committee. We learn that between 75,000 and 76,000 pieces are on the average dealt with weekly, and we think it highly probable that the capacity of the existing plant has been fully reached—there is, for example, only one calender at present.

There is a really excellent canteen, in charge of a patient, where patients may make such purchases as they desire and as their means allow, while in summer there is outdoor accommodation where friends and relatives can be entertained to tea.

Much attention is paid to patients' recreations and entertainments, and the day rooms throughout the hospital are well provided with games of various kinds; there is general provision of billiards tables in very good order, and in many wards table-tennis tables have been supplied. In the recreation halls dances are held and there are talking picture shows, while games of badminton are also enjoyed.

Fifty-four men and 9 women enjoy parole beyond the estate, and 77 men and 10 women are allowed access to the grounds. One male and 1 female ward are open to the ward gardens only.

The nursing staff at present consists of 6 male and 29 female charge nurses, and 111 male and 254 female ordinary nurses.

The night nursing staff comprises 22 male nurses and 51 female. Fifteen women nurses are employed on the male side. Seventy-five male and 91



female nurses are certificated or registered as mental nurses, and in addition 20 male and 16 female nurses have passed the preliminary examination only.

The mortality rate of 6 per cent. (6·3 per cent. males and 5·9 per cent. females) for 1936 shows a considerable drop from that for 1935 (which was 10·7 per cent.), and it compares favourably with the average rate for mental hospitals during last year. Since the last visit of our colleagues 13 months ago there have been 199 deaths (75 male and 124 female), 91 of which were of patients over 60 years of age. Amongst the causes of death, 87 were due to circulatory diseases, 41 to pulmonary conditions other than tuberculosis, 8 patients died from tuberculosis, 12 were suffering from general paralysis, 14 were afflicted with kidney disease, 10 had cancer, and 7 were epileptics.

One patient died as the result of a suicidal act previous to admission, the circumstances of which have been reported to our Board.

In only 29 per cent. of the deaths was permission obtained for post-mortem examinations.

This hospital has not escaped the epidemics of influenza prevalent in the spring of 1936 and again this winter; 160 patients and 74 of the staff have been affected, and 12 of the former (all women) are still under treatment. Enteric fever, which had been absent for more than a year in consequence of the vigorous methods adopted to discover and segregate carriers, made its appearance in one man last October, and there has also been one case of dysentery.

Erysipelas continues to crop up sporadically, 8 women and 1 man having been affected between February of last year and January this year. Two cases of scarlet fever on the male side and one of colitis in a woman completes the history of epidemic and zymotic diseases during the period under review.

Twelve women and 3 men have sustained serious but non-fatal injuries since the last visit. All involved the fracture of bone; 10 were due to accident, 4 to the action of other patients, and one was the result of a fainting fit. Most of the patients were elderly.

There were 117 male and 257 female patients in bed on the first day of our visit. The great majority of these are senile and infirm, but not a few were so confined for mental reasons, chiefly excitement, while 5 of each sex are active tuberculosis patients receiving open air treatment on verandahs. This latter form of treatment, so beneficial for other forms of disease, is much used, and we were pleased to see the large numbers so accommodated. We were however struck by the free use of commodes both on the verandahs and elsewhere, and while we realize that this may be necessary, we would suggest that a less objectionable position might be found for them than between beds. We must also draw attention to the disuse of dressing gowns. Although there are ward stocks of these articles and of slippers, we found on enquiry that little use is made of them in some wards, and indeed when we made a night visit to one of the male observation wards, we saw a patient returning from the lavatory without either one or the other, and none could be produced.

Owing to the exigencies of space, few of the wards have clinical rooms. Such clinical rooms as remain have a fireplace as a general rule, but we recommend that an electric or a gas fire should be substituted.

We paid particular attention to the method of separating cleaning materials used for sanitary annexes from those used for other purposes, and we must again emphasize the necessity for keeping distinct articles for sanitary use. In one or two wards it was admitted that the same scrubbing brushes are used for all purposes.

We examined the clinical records and found them to be very full. These records are kept in the central office, and no case sheets are to be found in the wards. The pathological laboratory is a very active department of the hospital. All routine examinations of excreta, blood, serological tests, and



special investigations are made here for every new admission, and it is also largely due to the efficiency of this laboratory that enteric and dysentery carriers have been discovered.

We hope that these routine examinations will ultimately lead to the elimination of these diseases.

We were interested to hear from Dr. Silverston that there are now only 6 male and 7 female enteric carriers in the hospital: all of them are isolated.

The clinics held weekly at Lancaster Royal Infirmary and twice a month at the North Lonsdale Hospital, Barrow, continue to function. During 1936, 15 male and 12 female patients made 97 attendances at the former, while 24 males and 28 females visited the clinic at Barrow on 122 occasions.

The appointment of a social worker has been under consideration but no decision has yet been taken. In the course of our visit we met many patients who had home troubles, matters which could well be dealt with by a social worker in the course of her more important duties.

#### LANCASHIRE MENTAL HOSPITALS.—2. RAINHILL.

*April 14th, 1937.*

Our visit to this hospital this year coincided unfortunately with the absence on leave of Dr. E. F. Reeve, the Medical Superintendent. Dr. G. F. Denning, the Deputy Medical Superintendent, and the other members of the medical staff have, however, given us every assistance and we wish to express our thanks to them.

There are at present 2,921 (1,389 M. and 1,532 F.) patients resident in the hospital, of whom 23 males and 19 females are voluntary patients; there are only 3 temporary patients, all women. These figures show that the advantages of the Mental Treatment Act are not generally realized in the area served by this hospital, but it is right to point out that owing to difficulties of accommodation it is unreasonable to expect any very large increase in the number of voluntary admissions in the immediate future. During 1936 there were 383 direct admissions (163 M. and 220 F.); of this total 18 males and 23 females were admitted as voluntary patients, and 4 females as temporary patients; 22 patients (9 M. and 13 F.) were admitted on transfer. During the same period discharges numbered 171 (65 M. and 106 F.), including 28 voluntary (9 M. and 19 F.) and 2 female temporary patients; 24 patients (10 M. and 14 F.) were allowed out on trial, and in 5 cases (2 M. and 3 F.) money allowances were granted.

One hundred and fifty-four patients died during 1936, 78 males and 76 females, and in this total are included the deaths of 2 females who were voluntary patients.

We are sorry to learn that no patients are boarded out under Section 26 or 57 of the Lunacy Act of 1890, and we hope that the question of boarding out suitable patients will receive the attention of the Committee, since efforts in this direction might well contribute some relief, even though small, to the very acute overcrowding which persists in the hospital. At the present time there is a deficiency of accommodation to the extent, by day, of 124 on the male side and of 256 on the female. By night the figures are, on the male side 56, and on the female 78. Increased accommodation is in contemplation, but it is clear to us that the problem of overcrowding, with its attendant evils, will continue to be serious for many years.

During our tour of the wards, we were particularly pleased at the generous supply of pot plants in evidence in the day-rooms and by the large number of poster-pictures which now adorn the walls. Generally, the day-rooms and dormitories are in good decorative repair, but at the Annexe House the upper floor rooms need attention in this respect.

We noticed that many of the wire mattresses of the beds throughout the hospital are in need of replacement, as are a large number of coir-stuffed



mattresses in use. The latter are lumpy and badly filled in many cases, and though we understand that many of them receive attention at very frequent intervals, it is clear that the present arrangements in this respect are unsatisfactory. In those side rooms where patients are bedded on the floor it is the custom to provide one mattress only; this practice is as unusual as it is to be deprecated, and we hope that in all such cases it will be found possible to provide two mattresses in future.

We were astonished to learn that on the male side no toilet paper is provided, and that newspaper only is available. On the female side toilet paper is issued, and such an issue should also be made on the male side.

We were interested to see, at the annexe on the male side, a number of dining tables which have white cellulose painted tops. These tables are attractive in appearance, and we were glad to learn that they have proved satisfactory in use, and that in course of time it is proposed to treat similarly the rest of the dining tables in the hospital.

The annexe kitchen is in very good order. That in the main block is to be replaced, but this cannot, we suppose, be effected for some time, and meanwhile that part of this kitchen known as the "back kitchen" badly needs cleaning and decoration. In both kitchens the provision of fish fryers would, we feel sure, be very greatly appreciated by the patients.

The laundry has, since the last visit, been equipped with much additional machinery, including an 8-roller ironing machine, 3 washing machines, a hydro-extractor and a twin-rapid steam press. Here we were shown a very efficient locking device, designed in the hospital, for the hydro-extractor lids. We were particularly pleased with the system of dealing with the foul linen here.

The patients dietary is general and varied, and fresh fruit and green vegetables are regularly and frequently issued. Patients attending entertainments enjoy a light supper afterwards.

We were, however, very surprised to learn that there is still no canteen in this large hospital, and we earnestly hope that the Committee will see their way to providing one. The present arrangement whereby the nursing staff make purchases from small shops outside the hospital is not, and can never be, an efficient substitute for a well-run hospital canteen. There are very few hospitals where no canteen exists, and we feel sure that if the pleasure and benefit which patients derive from a canteen were realized here, a canteen would be in existence in the hospital in a very short time.

We saw, we believe, all the patients in residence, and with all who desired it, we had conversations.

One patient complained to us of ill-treatment by the nursing staff, but after inquiring into the matter we are satisfied that the allegations made to us were without foundation. We received the usual number of appeals for liberty, but in no case was a patient who asked for discharge well enough to receive it. We found the wards quiet and orderly and the patients generally as contented and happy as their mental condition allowed. The blue clothing of the male patients is gradually being replaced by tweeds of different colours, while the women's clothing is generally comfortable and in good order. Coats are being substituted for shawls, and some light modern underwear is available. We were sorry, however, to find that garments of old-fashioned type are still being made, and we would suggest that it would add to the comfort and contentment of the women and bring their clothing into line with that in other hospitals if chemises were replaced by woven garments, and short flannel underskirts by a simpler type hung from the shoulders, and if stockings of light weight and colour were provided for those who would appreciate them.

We hope also that it may be possible before long to mark all hospital clothing with thread, by means of pantograph machines, instead of with the present unsightly and destructive ink. Thread marking, by prolonging



the life of the articles marked, is economical, and it in no way detracts from the appearance of the garments or other articles marked.

In the crowded state of the hospital there is little space for additional furniture, but where it is possible we feel sure that the provision of means of keeping personal belongings and of better storage of clothing would be very advantageous. We have particularly in mind those wards where at night clothing is laid on the beds or on the floor, and the female main house where convalescent and well-behaved patients are accommodated; here lockers or dormitory chairs, or a fitting to include both would, without any doubt, be very much appreciated.

We had the advantage of meeting the Librarian, the Rev. G. Daulby, in the course of our visit, and of seeing his method of supervising and recording the issue of books. We should like to point out that if a suitable parole patient could be found to undertake the routine side of this work it would be of advantage both to the patient and to the librarian, who would then be free to deal with other aspects of the library work. There is only a monthly issue of books to each ward, and we should like to see such an issue made fortnightly at least, or weekly if this is possible. We are glad to know, however, that parole patients have the privilege of choosing their own books, and we were pleased to find the books themselves so well kept and bound.

We were interested to hear that there are requests from the nursing staff for technical works, but there is at present no technical library available, and we feel that there is here an omission which could be remedied at small cost. Since the last visit of our colleagues a supply of teaching anatomical charts and an anatomical model have been purchased.

The present nursing staff is as follows :—

									Male.	Female.
Charge	...	...	...	...	...	...	...	...	20	27
Ordinary	...	...	...	...	...	...	...	...	129	194
Night	...	...	...	...	...	...	...	...	28	36

One hundred and nineteen members of the male nursing staff and 62 of the female are certificated or registered as mental nurses, and 62 nurses (17 M. and 45 F.) have passed the preliminary examination.

Occupation therapy as practised in the hospital falls naturally into three groups. Firstly, some 35 women, chosen, we were glad to see, mainly from those who have hitherto been idle or distinterested, are being taught a variety of handicrafts ranging from very simple mat-making to crochet work and embroidery. Secondly, a room formerly used for carpentry has been cleared to provide space for pottery work, weaving and chain fence making by male patients. As yet only a few patients work here, but the possibilities of useful extension of the department is considerable. Dr. Wilson is attending classes which will qualify him to teach this work, and already he has attained considerable skill. Thirdly, an attempt is being made to develop basket making as an occupation for patients who are treated in bed. The use of lighter and more easily handled material would, we feel, be an advantage to patients of this type. We appreciate the efforts that are being made, and the results so far achieved, but we hope that what has been done will be regarded as a beginning only, and that there will be an active extension of this form of treatment to include the very many dull or quarrelsome patients who are now entirely without occupation. We were glad to learn that drill classes for patients of both sexes are in contemplation.

Recreation receives due attention in the hospital, and every patient who is well enough attends a dance, a concert, or a talking picture performance weekly. The new recreation hall, now in course of construction, will be of the greatest value when it is completed and brought into use.

The ward gardens are in general adequate in size and all are well kept. We think, however, that the airing court of ward F16 at the annexe is far too small for the number of patients using it, and we hope it may be possible to increase the space available.



The mortality rate for 1936 was 5·29 per cent., which compares very favourably with a rate of 6·8 per cent. for all mental hospitals during the same period.

Since the last visit, 8 months ago there have been 131 deaths, post-mortem examinations having been carried out in approximately 42 per cent. of the cases.

Seven patients—3 male and 4 female—died of tuberculosis. Nineteen male and 12 female patients are at present under treatment for this disease. It is interesting that the figure for new cases per 1,000 notified in 1935, i.e., 6·3, is the same as that for all mental hospitals, and that the figure for deaths per 1,000, i.e., 4·9, compares with 4·6 for all mental hospitals.

General paralysis was responsible for the deaths of 7 male and 8 female patients. Treatment by Pyrifer is given to general paralytics here, and it is hoped to publish shortly the results obtained in a series of cases.

Inquests were held on two patients: one of these had sustained an accidental fracture, the other a bruise by flinging herself to the ground. In both cases verdicts of death from natural causes were returned. Serious, but non-fatal, casualties during the last 8 months number 9, all of them being cases where fractures were sustained. In 5 of the cases the casualty was due to interference by another patient, while the remainder were the results of accidents. Among infectious diseases since the last visit are to be included 1 case of pellagra, 7 of lobar pneumonia, while 137 patients and 70 members of the staff had influenza. There have been 6 cases of dysentery, and 5 of these cases, all males, are still under treatment. Patients who have had clinical symptoms of dysentery are kept in bed until bacteriological reports have been negative on six successive occasions over a period which is usually about one month. No re-examination is carried out unless symptoms recur or there is clinical reason to suppose that the patient may be a carrier; all dysentery patients are and remain on intestinal infection caution cards. Inquiries during our visit showed that some of these cards were unsigned, though the members of the staff concerned were aware of the names of these patients.

Much routine work is carried on in the laboratory, which is used also for teaching purposes. Some investigation is being carried out into pathological and bio-chemical conditions in dementia praecox, and we heard with interest of work which is to be undertaken in the study of the blood in epilepsy.

#### LANCASHIRE MENTAL HOSPITALS.—3. PRESTWICH.

*August 17th, 1937.*

To-day 2,630 patients (1,181 male and 1,449 female) are in residence here: this total includes 29 voluntary patients (18 male and 11 female). There are no temporary patients, nor were any admitted during 1936, in which year the total admissions (of whom 34, 19 male and 15 female, were voluntary patients) numbered 189 (109 male and 80 female), while 134 (6 male and 128 female) were admitted on transfer. During 1936, 66 patients (37 male and 29 female) departed or were discharged and 101 (54 male and 47 female) died.

No patients are at present out on long leave or trial, and none are boarded out under Sections 26 or 57 of the Lunacy Act, 1890.

The hospital is badly overcrowded, and we feel that some contribution, small though it might be, would be made towards the solution of this problem if boarding out suitable patients were favourably considered by the Committee. Among 2,630 patients it is unlikely that none are suitable.

As is well known to our Board, the precarious state of many of the buildings has made necessary the demolition and reconstruction of whole blocks of wards, and much work to this end is now in progress. It follows that the medical and nursing staffs are working under conditions which are both difficult and uncomfortable.



Since the last visit new female wards 6, 6A, 7, 8 and 8A, with the connecting corridors, have been completed and taken into use, part of female ward 11 (which was in a dangerous condition) has been demolished, as have male wards 6, 6A, 7 and 8. The re-laying of drains throughout the hospital continues and female ward 9 is now being re-conditioned. In contemplation are the rebuilding of male wards 5, 6, 7 and 8, the re-roofing of the sanitary blocks and corridors in the annexe, and further repairs and re-conditioning in various parts of the hospital.

During our tour of the wards, we came across many instances of neglect of proper ward hygiene, and ward routine generally. In making this statement we wish however to make it clear that our criticism does not apply to every ward. Some wards, particularly on the female side, are very well kept indeed, and their condition reflects credit on those responsible.

We came across more than one instance of walls and lavatory basins smeared with filth: the methods of tooth-brush storage are haphazard, ranging from very good tooth-brush racks in a few wards, to no receptacles at all in others—in some wards the brushes are tightly packed in jam-jars, each brush touching several others. In few wards are there stocks of dressing-gowns and slippers, nor did the nursing staff on the male side appear to realise that stocks were readily obtainable. In very few wards are the scrubbing-brushes used for the lavatories readily distinguishable from those in use for other purposes, and in one male ward, a prolonged search resulted in the discovery of only two brushes, one of which was quite useless for any purpose. Many of the sanitary annexes are well kept, and indeed we found only one bathroom, in male ward 2 at the annexe, which was dirty and untidy.

We are disposed to think that the towel supply is insufficient as only roller towels and very few small hand towels are provided, the precise number required is not so readily ascertainable, as it would be if the towels issued were small—but it is evident that the number of towels available for use at any one time is quite inadequate in most of the wards. In male ward 5 yesterday there was only one roller towel for 56 patients—no doubt others were in the ward but they were not available for use.

In many of the dormitories, particularly in those male wards in the annexe, the pillows need changing oftener, while we have hardly seen a good mattress anywhere in the hospital. The mattresses are dealt with in a small shop by one member of the staff, who has the assistance of 4 patients. There is a small teasing machine capable of dealing with some four mattresses daily. Here this morning we saw mattresses, which had come from the sterilizer for re-making, with the ticking, smothered with caked faeces, lying on the floor awaiting return to the laundry for washing. Except in the case of fouled mattresses which are infected, we suggest that the ticking be removed and thoroughly soaked before it is placed in the sterilizer. We feel that there is urgent need for an increased staff to deal with the mattresses at this large hospital, and we would point out that if the mattresses were better made, properly buttoned and made with good walls, they would remain in service far longer without the need of re-conditioning.

In few if any of the male wards in the main building are the w.c.s equipped with half-doors. While this may involve no great hardship in the case of some of the chronic patients, we consider that at any rate in the reception ward doors should be provided, as well as in any ward where the patients would appreciate such a measure of privacy.

In very few wards did we see either pot plants or cut flowers, while in some only wood benches are supplied and here there are no comfortable chairs of any kind.

There is a good supply of books everywhere, but in some cases the supply of newspapers might well be augmented, and at the farm where there are 43 patients, we were informed that more newspapers were in fact required, that they had been asked for but not received.



The poison cupboards throughout the hospital need attention : in some cases at least one key opens the main cupboard door as well as the door of the inner poison cupboard, and in others non-poisonous medicines, etc., are kept in the cupboards marked poison.

The laundry is generally in very good order, and we were pleased with the arrangements made for dealing with foul linen and for sterilising bins. More supervision is however required with regard to the disinfection of the rubber gloves used for sorting, a matter which we have discussed with Dr. Gifford, the Medical Superintendent, and to see that only marked bins (of which sufficient should be provided) are in fact used for the infected linen. In some wards owing to the difficulties occasioned by re-construction, the linen has to be sorted out of doors without shelter, and it would be much appreciated by the staff, we are sure, if temporary shelters could be arranged.

The kitchens, both at the annexe and in the main building, are well kept and clean. As was remarked by our colleagues last year the provision of mixing machines would be a great advantage.

The patient's dietary is fair on the whole, but we consider that the breakfasts are capable of improvement, and we notice that on three days weekly, no second course is served at dinner. Bananas are issued once weekly for tea, but a regular issue of oranges and apples would benefit the patients. Yesterday we had complaints in one ward that the meat issued for dinner was tainted and this morning an inspection of the butcher's refrigerating room showed the thermometer there registering a temperature of 54°. While it is possible that the refrigerating apparatus is not functioning properly, it is more likely that stringent rules regarding the times at which and the periods for which the room may be opened would obviate any further difficulty.

Nowhere in the hospital are plate-warmers provided in the wards, and we trust that this omission will in due course receive attention, while we should like to see metal bins for bread substituted for the present wicker baskets, the latter being impossible to clean satisfactorily.

We found the patients on the whole orderly and apparently contented, though some of the wards were rather unusually noisy and disturbed. This we attribute in part to the lack of occupation for so many patients of both sexes.

We understand that occupational thereapy has been quite disorganized by the difficulties arising out of the rebuilding operations, but we see no reason why a great deal should not be done in the wards at any rate until other space becomes available for occupations. There are small occupation rooms for both sexes at the annexe as well as in the main building, but only about 30 men and 60 women are employed in them. We much hope that every effort will be made to train members of the nursing staffs sufficiently to undertake simple handicraft instruction in their own wards, more particularly in those wards where the more regressed or more introverted types of patients are accommodated.

Some effort is being made to modernise the underclothing of female patients, some light and comfortable garments having been provided for use in the new wards. It is most desirable that modern clothing should be provided also for newly or recently admitted patients. We understand that it is anticipated that the older types of garments will be replaced by modern ones as they wear out, but there is, we think, room for better organization in this respect. In one ward for 69 women, there are on stock, we learn, over 400 garments of a type which is obsolete outside institutions—obsolete indeed inside most of them—while others of the same kind were being made in the sewing room to-day. Progress towards modernization can hardly be said to be active while these arrangements continue.

We hope that the value of allowing patients of both sexes to wear their own clothing whenever possible will not be forgotten, and that the provision of individual clothing for all will be kept in mind as the possibility of introducing it arises.



The introduction of thread marking to replace the present unsightly and destructive method of marking with an inked stamp, and improvement in the adjustment and fitting of underclothing, frocks, and men's suits so as to give a better appearance, are other points which deserve attention.

The mortality rate for 1936 was 4.2 per cent., which is low by comparison with that (6.8 per cent.) for all mental hospitals over the same period. Since the last visit there have been 158 deaths, post-mortem examinations having been carried out in 48 cases, i.e. in about 30 per cent. of the total.

Apart from cardio-vascular and respiratory diseases, from which the majority of these deaths resulted, the most important cause of death was general paralysis, from which 12 male and 6 female patients died. Treatment of male patients by pyrifera is undertaken but no pyrexial treatment of any kind has been used for female general paralytics for some years, we understand.

It is in our view regrettable that those who suffer from such a serious disorder should not have the advantage of malarial or other pyrexial treatment which, though admittedly not devoid of risk, is generally recognized as beneficial in a proportion of cases, and is practised in other hospitals both in this country and abroad.

Twelve patients, of whom 7 were males and 5 were females, died of tuberculosis, while 2 male and 10 female patients are now under treatment for this disorder. In this connection it is of particular interest to know that estimation of the blood sedimentation rate is used in the laboratory here as a means of investigation for active disease. This test has especial usefulness among patients who cough little, and it has been the means of tracing at least one case which was subsequently confirmed by other examinations. Enteric fever affected 2 female patients, 1 of whom died, since the last visit. Extensive laboratory control of new admissions, carriers, and suspected carriers, is maintained.

Dysentery is at present a more urgent problem. Since the visit of our colleagues last year, there have been 16 cases, all but 1 having been among male patients. There have been 3 deaths and 6 men are now actually under treatment. Up to November 1936, cases occurred in 4 different wards (female 6 and isolation in the annexe, and infirmary 1 and ward 2/3 in the main building). Thereafter there were no cases until May of this year, when symptoms occurred in a patient who had been in Farm Cottage (Isolation) and male ward 3 of the annexe: there was a short series of cases in ward 3, and subsequently another series of 5 cases in male ward 2 at the annexe, where a patient developed symptoms the day after his transfer from ward 3. Another case arose in Farm Cottage at the end of July. All these cases, except 1 bacteriologically negative, were due to infection by bacillus Flexner W; a recent complication is the appearance of organisms of type Z in another case, and possibly in a second now under investigation. Points which occurred to us were the need for better accommodation for male carriers than the dismal and condemned isolation ward at present in use (we understand that this is under consideration), and the provision of accommodation for female carriers now nursed in single rooms, the need for closer supervision of arrangements for dealing with infected linen while being taken from the male ward, and the desirability of substituting the rectal swab method for that now in use in the search for carriers. We realize however that all concerned are working under heavy handicaps in present conditions.

Eight patients (1 male and 7 females) and 8 female nurses had diphtheria but no cases are now under treatment.

Other infectious illnesses have included influenza or influenzal colds (122 cases), pneumonia of various types (26 cases), and erysipelas (9 cases, all female).

Three inquests particulars of which have been reported to our Board, have been held.

Casualties since the last visit total 14, all involving fractures. Three of these occurred in male patients (2 during epileptic fits and 1, a fracture



dislocation of the finger of a difficult patient from a cause unknown); 3 of the 11 casualties among the female patients arose out of quarrels between patients, and the remainder were due to accidental falls.

We saw several patients during our visit who suffered from conditions not fully diagnosed: one or two of these had obscure abdominal symptoms, and 1 a severe and unusual type of skin infection. No reflection on the care and skill of the medical staff, who had obviously given time and thought to these cases, is intended when we say that in our opinion it would be an advantage if fuller use could be made of the existing arrangements for co-operation with consultant physicians and surgeons in cases of this kind.

Enquiring as to those who suffer from cataract, we were given the names of 7 patients. Not all these cases are considered fit for operation, but we saw 1 patient who appealed to us to be operated upon: we understand that she has been seen by the ophthalmic surgeon, who considers an operation to be indicated, and that she is confined to bed during part of every day because of her recent blindness. Dr. Gifford tells us that he has explored every avenue, but can find no means by which an operation can be arranged in the present condition of the hospital. We are strongly of opinion that further effort should, however, be made to secure appropriate treatment, either here or elsewhere, for this and any other patients who may need it without further indefinite delay.

The nursing staff comprises:

						Male.	Female.	Total.
Charge nurses	...	...	...	...	...	14	23	37
Ordinary nurses	...	...	...	...	...	159	187	346
Night nurses	...	...	...	...	...	25	31	56

of whom 90 men and 28 women are certificated or registered as mental nurses.

In female ward 8A, one night nurse is responsible for 41 patients, of whom 18 are regarded as suicidal or homicidal or both, and in female ward 8, 1 nurse is responsible for 43 patients, of whom 13 cases are similarly regarded. We have discussed this situation with Dr. Gifford, and we hope that steps will be taken to lessen these responsibilities, which to us appear to be too great, despite the visits of patrol nurses and the provision of emergency bells in the wards.

Much active work is carried out in the laboratory, particularly in relation to infectious disorders.

We are glad to record that a number of convalescent and other patients expressed to us their appreciation of the kindness and consideration shown to them here.

We wish to thank Dr. Gifford and his medical staff for the assistance and information which they have given to us throughout our visit.

#### LANCASHIRE MENTAL HOSPITALS.—4. WHITTINGHAM.

*February 19th, 1937.*

We have to-day concluded our visit to this hospital, and we have been pleased with much that we have seen.

While no important alterations and improvements have been made since the visit of our colleagues last year, in 4 wards improved sanitary conveniences are being at present provided, and important work is contemplated for the future. Projected works include improved sanitary annexes for the two wards where dysentery carriers are segregated, temporary buildings for the accommodation of 100 patients, the reconstruction of the existing administrative block (including the main kitchen), a nurses' home, and an admission hospital and convalescent villas.

As is to be expected, overcrowding is slightly more serious than it was last year, there being now deficiency of space on the male side to the extent of 171 by day and 178 by night, and on the female side to the extent of 135



by day and 141 by night. From these figures it is clear that despite the provision of the extra accommodation now in contemplation, overcrowding is likely to be a serious problem at this hospital for some years to come. There are at present 3,260 patients resident in the hospital (1,609 males and 1,651 females), of whom 44 (26 M. and 18 F.) are voluntary, and 9 (1 M. and 8 F.) are temporary patients.

During 1936 direct admissions totalled 536 (263 M. and 273 F.). In this number there were 63 voluntary patients (35 M. and 28 F.), and 28 temporary patients (7 M. and 21 F.). During the same period there were 261 discharges (119 M. and 142 F.), including 42 voluntary patients (22 M. and 20 F.), all of whom were discharged as recovered, and 14 temporary patients (2 M. and 12 F.), of whom 12 were discharged as recovered; 127 male patients and 101 female patients died during this period.

Twenty patients, 10 of each sex, were allowed out on long leave or trial, but in one case only was a money allowance granted, and at present there are no patients boarded out. The boarding out of patients is a matter which we hope the Committee will consider, since, if it were found to be practicable in this area, some contribution at least would be made towards solving the very pressing problem of overcrowding.

We have seen all the patients in residence and had conversation with a great many of them. We found them on the whole very quiet and orderly, and, apart from appeals for liberty, we received no complaints. No patient who asked for discharge was, in our opinion, fit to receive it.

Patients' clothing is satisfactory, and we were glad to learn that there is now an overcoat for every male patient, and that the question of the modernization and improvement of underclothing on the female side is being dealt with, and that in this respect good progress is being made. There are, however, not yet individual sets of underclothing available for patients, and we much hope that before long such sets may be provided for suitable patients. Most of the clothing is still stamp-marked, but the hospital possesses a pantograph machine, and we hope that in course of time the unsightly and, in the long run, uneconomical method of stamp-marking will be entirely replaced by thread-marking. Reference has been made in former reports to the inadequacy of the space available for clothing stores, but by the exercise of ingenuity the available space has been used to great advantage in many wards, and in these coat-hangers are provided.

With two exceptions, to which reference will be made later, the provision of entertainment and recreation for patients is beyond criticism. There is an admirable Recreation Hall where there are organized entertainments for patients on almost every evening in the week. There are dances, whist drives and concerts, while there are in the hall as many as four badminton courts. Out of doors cricket and football are enjoyed during the appropriate seasons, and a new crown bowling green is now under construction, while in two ward gardens there are clock golf courses. Indoors there are games in variety, including plenty of billiards tables in very good condition.

There is, however, still no talking picture apparatus, and in very few wards are wireless sets to be found. We regard the provision of these amenities as being of the first importance, and we most earnestly hope that before long the Committee will feel able to supply them. Several patients asked to speak to us, solely to say how much they would appreciate a wireless set in their ward, and from our experience we know that no entertainment is appreciated so much by patients as talking pictures.

There is a good central library in charge of two patients under the supervision of the Chaplain, the Rev. J. Rosbotham, M.A., and we found a generous supply of well-bound volumes of illustrated periodicals, as well as of books, throughout the wards.

The dietary, which is on a four-weekly basis, is generous and well varied, but we consider that an issue of fresh fruit should be made weekly throughout the year.



There is a large and exceptionally well-stocked canteen for the use of patients where, in addition to the usual stocks of food and confectionery, clothing and toilet articles may be purchased.

We found the dormitories and day-rooms generally very well kept, and with one or two exceptions the sanitary annexes, though in need of modernization, were clean and in good order. We hope, however, that it may be possible to fit half-doors to the w.c.'s where these do not at present exist; in a few cases this has been done, but not apparently recently. We were pleased to see that the nursing staff were well conversant with the special caution cards in their charge, and with patients to whom they related.

In nearly all wards there is an attractive display of ferns in suspended baskets, and a good supply of plants in pots. Throughout the hospital the decorative condition of the wards is good with the exception of the annexe, where redecoration is now proceeding.

In all the bathrooms, on both the male and female sides, fabric screens are provided between the baths.

We are not satisfied that the existing method of plate warming in the wards is efficient, and in our opinion the provision of proper plate warmers is a matter which calls for consideration in the near future. However well cooked food may be, it soon becomes unappetising if it is served on a cold, or nearly cold, plate.

A new small occupation annexe for 10 male patients and a new room for females have been opened since the last visit, and the other rooms, 1 for males and 1 for females, are doing good work. A number of female patients (42) are employed in the sewing-room, where, in addition to the usual sewing and darning machines, there is a knitting machine, and a few male patients find occupation in the shops. A little work is done in the wards, but there is much scope for increased activity, and real need for more occupation rooms, particularly on the male side. We much hope that the question of providing occupation for the more degraded types of patients of both sexes will be given attention, and that the existing physical training classes will be enlarged and increased. It is fair to add that at the present time illness due to influenza is making occupational work in the hospital particularly difficult.

Two hundred and twelve men and 106 women have parole within the grounds and 98 men and 39 women enjoy parole beyond the estate, while on the male side 2 and on the female side 1 wards are open to the grounds.

The present nursing staff comprises 38 charge nurses (16 M. and 22 F.), 341 ordinary nurses (166 M. and 175 F.), and 75 night nurses (35 M. and 40 F.). No female nurses are employed on the male side; 168 male and 88 female nurses are certificated or registered as mental nurses, and 20 men and 44 women have passed the preliminary examination only.

The out-patient centres at Preston, Blackburn and Burnley continue to function successfully, but no social worker has yet been appointed, the matter still being under consideration by the Lancashire Mental Hospitals Board.

For the year ending December 31st, 1936, the mortality rate per centum was 6.99 (7.9 for male and 6.06 for female patients), a figure which compares very favourably with the average for the mental hospitals of England and Wales during the same period.

In the 10 months since the last visit of our colleagues there have been 153 deaths (81 male and 72 female), and 65 of them were cases of patients over 60 years of age. The cause of death was verified by post-mortem examination in 47 per cent. of the cases, and no instance of a bed-sore is recorded; 53 patients have died from cardio-vascular diseases, 15 from pneumonia and bronchitis, 17 from general paralysis, 11 from tuberculosis, and 8 from epilepsy; in 27 instances death was due to the mental condition of the patients. The remaining deaths do not call for special mention with the exception of one, a man who hanged himself in circumstances already reported to our Board. This and 5 other deaths were the subjects of coroner's



inquests; in 4 instances the injuries were sustained prior to admission, and in the remaining case, that of an ex-service patient, death was accelerated by war service.

Dysentery, a reference to which appears later in this report, has been active during the period under review, 20 male and 41 female patients being affected, while there were 2 deaths. In addition, 2 female nurses contracted the disease. Erysipelas is recorded in 5 male and 3 female patients, and there have been 1 female patient and 1 nurse affected with diphtheria, as well as a stray case of scarlet fever.

There are 30 male and 47 female patients known to have had tuberculosis in some form, but only 9 of the former and 12 of the latter are regarded as active. These patients are receiving open-air treatment, and suitable provision is made for the protection of others.

Four men and 15 women have met with serious accidents during the period under review; 2 of them were accidental injuries caused by slipping, and the remainder were either fractures or dislocations, in 1 case due to diseased bone, in 5 either self-inflicted or caused by another patient; the remainder were purely accidental. Eight of the patients concerned were over 60.

We were very favourably impressed with what we saw of the sick nursing and with the arrangements made to overcome the inherent difficulties of construction and overcrowding in the sick wards, particularly in the old buildings. The nurses are well informed as to their patients, and their kindly attitude towards their weaknesses was very pleasing. There were 154 men and 182 women in bed, and their distribution is of necessity somewhat scattered. About one-third of each sex were of the senile type, not all of whom were permanently bedridden, a large number were recent admissions or under treatment for excitement, and only a relatively small proportion were physically ill. The wards were for the most part cheerful with bright bed furnishings and flowers. Most of the sick wards have been fitted with a fixed wash basin, and others are to be installed.

The fight against dysentery can now be said to be organized. About two or three weeks ago ward 21 in the old annexe was opened for male old dysentery cases only. To-day there were 88 cases in the ward, including 7 suspects. There are also 10 male patients under treatment in a small ward at the sanatorium. On the female side there are 67 old dysentery cases isolated in ward 36 of the west annexe, 23 (some of whom have also had enteric) are at the sanatorium, 17 are isolated under rather crowded conditions in a side ward in female ward 15 (the chronic sick ward), 5, who are also tubercular, are segregated in the tubercle section of ward 31 in the west annexe, while one has to be kept in a side room of ward 10 main block, because of her disturbed mental state. Attention is given to details of hygienic disinfections in these wards. In male ward 21 a tank for soaking woollens in disinfectant has been provided in a small apartment entered only from the outside, and having a communicating clothes hatch opening into the ward corridor. All other clothing, and the woollens when soaked, are transported to the autoclave in the laundry in specially marked tins. The sanitary arrangements on the dormitory floor in this ward are to be altered, and more w.c.'s will be provided. On the ground floor the arrangements are unsatisfactory, and Dr. Grant, the Medical Superintendent, has promised to give his attention to the matter.

The bacteriological section of the laboratory examines specimens periodically, using the rectal swab method of collection in most cases. In time it may be possible to increase the liberty of some of these patients, but we do not think that the mental condition of the majority is good enough to make their segregation a hardship.

New admissions are tested for serum agglutination, and further investigation follows if required, but nothing in the nature of an intensive search for carriers has been made.



Certain points in connection with sewage, rats, and the desirability of extra milk for dysenteric carriers were discussed with Dr. Grant, and we know that he will give these matters his consideration.

Another matter which we consider of great importance is the employment of patients in the foul laundry; a possible source of danger would be removed if these patients could be relieved of the work.

One of us spent a considerable time in the laboratory where the various activities were discussed with the medical officers and the trained laboratory assistant, Mr. Gates. All the pathological work of the hospital is done here, with the exception of the Wassermann reactions.

Yesterday we had the pleasure of meeting Alderman James Fryars, J.P., the Chairman of the Committee, and of discussing with him various matters in connection with the hospital.

We have found our visit most interesting, and we should like to thank Dr. A. R. Grant, the Medical Superintendent, Dr. S. M. Allan, the Deputy Medical Superintendent, and the other members of the medical staff for the information and assistance they have so readily given to us.

#### LANCASHIRE COUNTY MENTAL HOSPITALS.—5. WINWICK.

*August 11th, 1937.*

Dr. F. M. Rodgers, the Medical Superintendent of this hospital, who was appointed on January 1st, 1924, is retiring in October next, and we are glad that we have been able to visit the hospital while he is still here. We take this opportunity of wishing him a long and happy retirement, and we are sure that it will be a satisfaction to him to feel that he will leave Winwick a well-conducted and progressive hospital.

To-day there are in residence 2,456 patients—1,196 men and 1,260 women. In this total are 22 voluntary (13 males and 9 females), and 3 temporary patients (2 males and 1 female).

During 1936 direct admissions numbered 303 (156 males and 147 females), including 34 voluntary (18 males and 16 females), and 9 temporary patients (1 male and 8 females); 152 patients (78 males and 74 females) were discharged, and 139 patients (77 males and 62 females) died during the same period. It will be observed that the combined total of deaths and discharges approximately balances the number of new admissions.

It is disappointing that at present no patients are allowed out on long leave or trial, and that none are boarded out under Section 26 or 57 of the Lunacy Act, 1890. In view of the fact that there is deficiency of accommodation on the male side for 152 patients by day and for 121 by night, and on the female side for 140 by day and for 91 by night, we feel that these are matters which deserve the careful consideration of the Committee, as it is improbable that among nearly 2,500 patients there are none who could not be boarded out with advantage both to themselves and to the mental hospital. In connection with this question of overcrowding, we may mention that two temporary buildings, each for 50 patients, are now in course of erection, and that it is hoped to have them ready for occupation early in the autumn, while plans for the erection of a new admission hospital with two convalescent villas have been conditionally approved by our Board. The problem is, therefore, being tackled with courage, but even with the new accommodation, we fear that overcrowding will continue to be a pressing difficulty in this, as in other Lancashire mental hospitals, for some years to come.

We saw, we believe, all the patients in residence, and we had conversation with all who wished to speak to us. Throughout our visit we have had abundant evidence of the good and kindly relationship existing between the patients and the medical and nursing staffs, and we found the wards quiet and orderly, with everywhere a pleasant cheerful atmosphere which speaks well for the general day to day conduct of the hospital.



Since the visit paid by our colleagues last year real progress, especially on the male side, has been made in occupational therapy, and we have little doubt that this has contributed to the quiet orderliness of the wards which, in the absence of well-organized occupation, so often are noisy and turbulent. While there is ample scope on both sides of the hospital for the development of this form of treatment, particularly as regards patients of the more regressed and introverted types, occupations are now organized here on the right lines, and we have been very glad to see so much useful work being done, not only in the occupation centres (which, frankly, are quite inadequate for a hospital of this size), but in almost all the wards. Here we saw many patients of both sexes, otherwise unemployable, engaged in varied handicrafts of simple types, and, as has already been said, we feel that in this department, a real advance has been made.

The clothing, in the case of the women, has been modernized, and the quality is good; but we noticed many instances of badly fitting garments, and we consider that a greater range of sizes of garments should be stocked. Many of the men, too, are wearing suits that are either far too small or far too large for the wearers, a state of affairs which could, we think, be remedied by greater attention being paid to the matter in the wards. We have suggested to Dr. Rodgers that many of the male patients would prefer flannel trousers, a tweed jacket and a woollen pullover to the existing suit, and he has promised to consider what can be done in this respect.

We much hope that consideration will be given also to the question of providing the better patients, men and women, with individual sets of clothing, and that it will be found possible before long to make better arrangements for the storage at night of the patients' day clothes. At present they are rolled in bundles and left on chairs—a practice which is neither hygienic nor conducive to long life of the garments. Finally, in this connection, we trust that before long the existing uneconomical practice of disfiguring good clothing and linen with an inked stamp may be replaced by thread marking.

The patients' dietary is generous and well varied, and there are regular issues of fresh fruit, tomatoes and salads. The kitchen, where a new fish fryer has recently been installed, is extremely well kept and equipped, and in this connection we were glad to see in every ward an efficient and commodious electric plate warmer, made in the hospital by the tinsmith. The baskets in use for carrying sliced bread from the bakery to the wards are not, however, in our opinion, satisfactory, in that it is a practical impossibility to keep wicker work really clean. In the absence of metal containers, which are easily sterilized, it might be possible for light metal linings for the existing baskets to be made in the hospital shops.

Since the last visit a canteen has been opened, and, as might have been anticipated, it has proved extremely popular. The premises, though small, are very well planned and equipped, and the stock is well varied, and calculated to meet most of the ordinary requirements of the patients.

The recreation hall has been redecorated, its acoustic properties have been much improved, and talking picture apparatus, with two projectors, has been installed. This addition, together with the provision of the new canteen, has given, and will, we make no doubt, continue to give more pleasure to those who are, unfortunately, unlikely ever to leave the hospital than could almost any other amenity.

While on the subject of patients' recreations—a matter which receives much attention at this hospital—we must not omit to mention the splendid new bowling greens, the putting green, and the miniature golf course, all of which have been taken into use this summer.

The wards throughout the hospital are exceptionally well kept, and their condition reflects much credit on all those responsible. Clean hand towels are provided daily for each patient, while bath towels are obtained direct



from the laundry by each ward on bathing days. Toilet paper is now provided in all the sanitary annexes, which are in very good order generally.

In every day-room there is a profusion of exceptionally well-grown pot plants and planted hanging baskets, and there is a generous supply of cut flowers. The ward gardens are at present a blaze of colour, and we have never seen gardens better kept and tended, while the flower beds in the neighbourhood of Winwick Hall are themselves worthy of a special visit.

The renewal of the electric wiring in the wards continues, and the decorators follow the engineers; the decorations throughout the hospital are, however, generally in good condition.

Twenty-eight new staff cottages have been completed and taken into use since the last visit, so that there are now 40 of them in all. The surrounding gardens are most attractive, and we should like to congratulate the Committee on the forethought shown by the provision of a conveniently situated playing-field for the use of the tenants' children.

The present nursing staff on the male side comprises 13 charge and 136 ordinary nurses, while there are 16 charge and 127 ordinary female nurses; the night staff consists of 28 male and 33 female nurses; 114 male and 43 female nurses are certificated or registered as mental nurses, and 31 men and 19 women have passed the preliminary examination.

Here, as in many other mental hospitals, the recruitment to the nursing staff of suitable young women is a question which is beginning to cause grave concern.

The laundry is well-equipped, and in very good order, and we were interested to hear that no less than 57,000 pieces are here dealt with each week.

The library has now been extended, and is particularly well arranged; the supply of books and newspapers and other periodicals to the wards is very satisfactory.

The mortality rate for 1936 was the low one of 6 per cent., the rate for all mental hospitals having been 6·8 per cent. over the same period. Since the last visit there have been 188 deaths, post-mortem examinations having been held in 67 cases, i.e. in about 36 per cent. of the total.

Cardio-vascular disease was responsible for the majority of the deaths, the next cause of importance being general paralysis, from which disease 29 patients died. Patients are now under treatment for this disorder by induced malaria; the records of patients so treated kept over many years are particularly full and informative.

Twenty-five patients (16 males and 9 females) died of tuberculosis. In this connection the following figures for 1936 are of interest :—

	New cases notified per 1,000 population.	Deaths per 1,000 of population.
All mental hospitals ... ..	6·8	4·5
Winwick Mental Hospital ... ..	9·3	8·5

Fifteen male and 13 female patients are now under treatment for tuberculosis. At present, as for some time past, the tuberculosis figures, compared with those of hospitals in Southern Counties, are high in this hospital. Without figures of tuberculosis rates in the general population of this county among patients of the same age distribution as those in this hospital, it is impossible to draw any accurate deduction from the figures given to us; but it is of interest to learn that a considerable number of examinations of faeces are made in the search for tubercle bacilli, and it is possible that many cases are detected by this means which would otherwise remain undiagnosed, though in the interpretation of a positive finding there is room for difference of opinion. The matter is one of importance, and if in the future the hospital should be provided (as we hope it will be) with a good X-ray apparatus, further light may be thrown on a question which affects other hospitals as well as this one.



One patient died from enteric fever; there have been no cases since the end of last year.

Since the last visit the particulars of intestinal infection are as follows :—

Typhoid fever	...	4 female patients	...	1 female carrier found
Paratyphoid B	...	—		1 female carrier found.
Salmonella	...	1 male patient	...	1 female carrier found.
Dysentery, Sonne	...	—		1 male and 6 female carriers found.
„ Flexner	...	2 male patients.	...	—

A considerable amount of careful work has been done in the laboratory in the search for carriers, and it is to the credit of all concerned that the number of actual cases has been so small. The register of patients who have had intestinal infection recently or in the past, and of the results of examinations made of them, and of contacts of staff and patients physically ill, enables all essential information regarding possible infection in any instance to be found immediately, and it is a valuable check on clinical findings. Other infectious illnesses have included influenza (158 cases), diphtheria (1 case), erysipelas (3 cases), lobar pneumonia (4 cases), and broncho-pneumonia (5 cases); all these cases have recovered or are convalescent.

Inquests were held upon two patients, one of whom died following an accident sustained before admission, the other following an urgent surgical operation for malignant disease.

Nine male and 8 female patients sustained fractures, all but 2 (which occurred during patients' quarrels) being due to accidental falls.

Mr. Tracey Forster, L.D.S., visits twice weekly; we were glad to hear from Dr. Rodgers of the satisfactory results Mr. Forster's treatment has had in a number of heavily infected cases. The appointment of a whole-time dentist for this and other hospitals is, we understand, still under consideration. In the meantime, though much treatment is carried out, this is in the main restricted to patients whose clinical condition has called for dental attention. We hope that it will not be long before arrangements are made to give every patient in the hospital the advantage of examination by the dental surgeon, and of appropriate treatment, including the provision of dentures where necessary.

The patients in bed were, in our opinion, well nursed and cared for. Much active medical treatment is given to those who are physically ill, and we were glad to recognize the intimate knowledge which the medical and nursing staffs have of their patients. The clinical records which we saw were informative.

The work which is carried out in the laboratory of this hospital is well-known, some of it indeed being known abroad as well as in this country. Routine investigations are done on newly admitted cases and on those who are physically ill. The search for intestinal infection has been mentioned. In addition clinical research of one kind and another is usually in hand, that done some years ago on the relative efficiency of a considerable number of serological tests for syphilitic infection being particularly well-known and valuable. It is a matter for congratulation that so much has been achieved under the heavy pressure of work here; we hope that in time the appointment of a pathologist will enable fuller advantage to be taken of opportunities for active pathological work which are so clearly recognized here. The field for research in a hospital of this size is large. There is a small museum of pathological material useful for teaching and we are glad to know that it is proposed to enlarge and rearrange this.

The teaching of the nursing staff is facilitated by the provision of a small library of technical works which is also to be enlarged.

Throughout our visit we have been given every assistance by Dr. Rodgers and by Dr. J. E. Nicole, the deputy medical superintendent, and the other members of the medical staff.



## LEICESTERSHIRE AND RUTLAND MENTAL HOSPITAL.

*February 10th, 1937.*

We were sorry to find on our arrival at the hospital that our visit coincided with the leave of the Medical Superintendent. In Dr. Drury's absence we had every assistance from Dr. Prentice and Dr. Sheldon.

The wards and various departments of the hospital are well arranged. When the weather is cold and inclement as it was at the time of our visit the advantages of this design of hospital are easily appreciated. The bright, airy and nicely heated corridors, the good classification made possible by the size and arrangement of the day-rooms and the large number of single rooms, the economy of space achieved by the special design of the dormitories, the clean and hygienic condition of the well tiled sanitary annexes and the substantial character of the fabric generally are some of the many pleasing features of this hospital.

There were in residence at the date upon which we commenced our visit 834 patients. In addition 4 men and 1 woman were absent upon long leave or trial. Private patients (including service and ex-service patients) numbered 82; of these 2 men and 6 women were voluntary and the remainder were certified patients. The weekly maintenance charge for private patients is 42s., that for rate-aided ones is 21s. The average weekly maintenance cost as last ascertained was 21s. 3<sup>3</sup>/<sub>4</sub>d.

Twenty men and 22 women in all were voluntary patients. There was only one temporary female patient in residence. During 1936 there were only 8 admissions of this character as contrasted with 48 voluntary and 158 certified admissions. It is obvious that full advantage is not being taken of the provisions of the Mental Treatment Act relating to the treatment of patients upon a temporary basis. We hope that further efforts will be made to remind those originally responsible for the treatment and disposal of mental patients in these counties of this method of avoiding certification in suitable cases.

A state of serious overcrowding continues to exist at this hospital. There is at present a deficiency of space calculated upon the prescribed allowance for 53 men and 65 women by day and for 55 men and 65 women by night. The former sewing-room adjacent to the cutting-room has been utilised for dormitory accommodation. The tailor's shop has been put to a similar use. The visiting room on the female side is still occupied by beds and the visitors of female patients are compelled to meet them in the corridor.

Three potential sources of relief in this respect are, firstly, the early completion of the male and female villas in course of erection to contain approximately 60 beds each, secondly the transfer to Stretton Hall Mental Deficiency Colony of a number of those patients whom Dr. Drury considers suitable for such treatment, and thirdly the transfer to the appropriate quarter of 12 patients at present in residence who are chargeable to Leicester City. At the end of our visit we were left with the general impression that this hospital has an unduly large proportion of mental defectives and of patients whose mental capacities have been much reduced by long illness. The classification of the patients in most of the wards is good. In two or three of the larger wards, however, there is a somewhat heterogeneous grouping of patients. It must be distressing for the more intelligent patients in these wards to be obliged to associate with defectives of faulty and depraved habits.

We visited all the wards and gave every patient the opportunity of speaking to us. The day-rooms in the main block were well furnished and well heated. They presented an exceedingly bright and cheerful appearance due mainly to their design, but partly also to the judicious use of natural and artificial flowers upon the tables and in the windows. In female ward 9 the noise made by the more disturbed and mentally retarded patients has



been considerably reduced by the use of asbestos sheets attached to the ceiling. In the charity wards where private patients reside excellent provision is made by way of separate wardrobes and lockers in which each individual patient may keep his or her private clothes and other possessions. Lockers are also used and appreciated by suitable patients in some of the other wards; possibly these privileges may be extended.

The dormitories were clean and well heated. The sanitary annexes, which are spacious, were kept in excellent condition. In female ward 9, however, we were told that there was no provision for hot water other than by means of the scullery tap, and that the supply of hot water for daily washing was brought to the ward in three large cans. In male ward 2, which contains 49 patients, many of them mentally defective, there was no bin or metal container for the conveyance of foul or infective linen to the laundry. In this ward we note that there are three cases on special (intestinal) cards. Every ward should obviously be supplied with this necessity.

We found that, while the arrangements for the issue of towels varied in different wards, no patients, with the exception of those in the charity blocks, had yet been provided individually with one clean hand towel daily for their separate use. If any increase in stock be necessary to accomplish this object we trust it will soon be made.

We visited the Isolation Hospital as the patients were assembling for their mid-day meal. The day and dining rooms were inadequately heated, the temperature at that time being 52°. We were told that technical difficulties prevented the extension of the central heating system from the main buildings of the hospital. We hope that some means will be devised whereby the difficulty of heating may be overcome. The Isolation Hospital also appeared to us to be in need of redecoration throughout.

We were pleased to find that 50 female patients find occupation in the laundry. We discussed with Dr. Prentice and the engineer the question of the provision of additional guards upon one of the calendars and upon a washer. A new multiple roller calendar is being installed.

Since the last commissioners' visit a temporary sewing-room has been erected to fill the need occasioned by the appropriation of the former sewing-room for dormitory accommodation. This was inadequately heated, the temperature at about 11 a.m. being 54°, but otherwise it appears to serve its purpose well. The male visiting room has been refurnished, and much redecoration has been done in various parts of the hospital.

At the date of our visit the erection of the two occupational therapy rooms and of the two new blocks for chronic patients was in progress. A number of half padded rooms on either side were in the course of conversion into higher or full padded rooms.

Some headway has been made with the organization of occupational therapy during the last few months and considerable development of this form of treatment is envisaged in the near future. At present a scarcity of day space hampers this work considerably but the new buildings will solve many difficulties. The deputy head male nurse appointed recently is chiefly responsible for planning the handicrafts for the men. A promising start has been made; coir-matting and the making of wire fence material is being taught to a few convalescing patients whilst a number of the more chronic and demented patients are occupied in teasing remnants of cotton and silk material.

On the women's side under the direction of a nurse, who has had experience elsewhere in training mental patients, classes are held each morning for teaching handicrafts, mostly raffia work and fancy work. In the afternoons this nurse conducts classes in physical exercises for groups of the mentally defective and more retarded patients. We saw one of these classes at work. Better results would be achieved during the early stages if the patients were trained in smaller groups. In passing we would also suggest that piano accompaniment would be more helpful than that of the gramophone. On



both sides of the hospital we should like to see physical exercises arranged for short periods daily for all the younger patients. We would suggest that more use should be made of the spacious recreation hall for these exercises.

A good proportion of the patients attend religious services and the weekly entertainments. The winter programme of cinema performances and dances is prepared well in advance and copies of the printed programmes are to be seen in each ward. We were glad to hear of the large number of male patients who avail themselves most evenings of the privilege of attending the club-room where they play various games until 9 p.m.

According to the miscellaneous returns for 1936 relating to this hospital, 65 per cent. of the men and 80 per cent. of the women are employed. Of the 233 male patients who are employed we note that 137 simply assist in the wards—a larger proportion than that of the female patients engaged in this work. Possibly if certain inducements were given more patients would be willing to work in the various utility departments. At some hospitals tokens which are exchanged for extras at meals and various personal articles produce good results. With such an efficiently conducted canteen as there is at this hospital we should like to see some such system given a trial.

The mortality rate of 9.5 per cent. for 1936 seems somewhat high, but is well within the normal range of variations of mortality incidences. An analysis of the ages of the patients who have died recently shows that more than one third were over 70. It is not surprising, therefore, to find that 20 of the 48 deaths which have occurred during the period under review were due to cardio-vascular degeneration. It is to be noted that 6 deaths were due to tuberculosis. An inquest was held in one case, the patient having attempted suicide the day prior to admission. A verdict of suicide whilst in a state of depression was returned.

During the last 6 months 8 patients (1 male, 7 females) have sustained fractures. The injury in one case was trivial. Six fractures of long bones in a hospital of this size in this comparatively short period is a rate considerably in excess of the average. Four of the accidents occurred to patients who were being nursed in bed. We feel sure this is a matter which will receive most careful consideration by the medical superintendent and his colleagues.

During the last few years sporadic cases of dysentery (Flexner type) have been diagnosed from time to time. To the promptness with which the active cases have been detected and to the co-ordination of clinical and laboratory work must be given the credit of preventing the spread of this disease to a larger number of patients. Each new admission is examined bacteriologically and all old cases are examined twice a year. Last October there were 4 new cases and another 2 last month—5 men and 1 woman. At present there is no active case in the hospital. We note that there are 12 male patients with special (intestinal) cards. These are distributed in 5 of the 8 wards. Whilst recognizing the disadvantages of segregating in the same ward patients who differ greatly in mental and physical condition we think it is desirable to concentrate these card cases in as few wards as possible.

At present there are only 2 clinical rooms at this hospital, 1 adjacent to each of the infirmary wards. Although small, these rooms serve a most useful purpose and we feel sure the medical and nursing staff would welcome such rooms in every ward. Until the present overcrowding is remedied by the erection of new villas for patients, and the single rooms now occupied by nurses are freed by the provision of a nurses' home, there can be but little prospect of more clinical rooms. But we hope that when single rooms become available this matter will be borne in mind.

At the time of our visit there were only 17 men and 20 women being nursed in bed; these are comparatively small numbers. We were glad to find 5 of the men on the verandah. Sick patients receive good medical care. It would be a great convenience to the nurses if fixed wash-basins were installed in the infirmary wards.



According to the miscellaneous returns for 1936 the total staff of charge and ordinary nurses is 90, of whom 9 are allocated to night duties. The average number of patients to each nurse on duty at 10 a.m. and 2 a.m. is 16·4 and 93·2 respectively. More than 75 per cent. of the male and 28 per cent. of the female nurses are certificated.

LINCOLNSHIRE (LINDSEY AND HOLLAND) MENTAL HOSPITAL, BRACEBRIDGE.

*March 17th, 1937.*

Yesterday and the previous afternoon we spent visiting the day-rooms, dormitories and other departments of this hospital. Dr. Macarthur accompanied us throughout our visit, and we were much helped by being able to discuss with him many of the details of administration as these came to our notice.

The outstanding impression left upon us by this our first visit to Bracebridge Hospital, was that the hospital has an exceptionally large number of mental defectives. The Report of the Wood Committee published in 1929 indicated the relatively high incidence of mental deficiency in some rural areas; and in view of the failure to make special provision for defectives in many areas, it is not surprising to find mental hospitals serving rural communities with large numbers of aments. But seldom have we seen such a large proportion of the resident population of the hospital comprised of mental defectives as that at Bracebridge. The large number of defectives at this hospital must inevitably militate against its proper function—that of treating patients suffering from psychotic conditions. Moreover, it is unlikely that patients in the earlier and therefore more curable stage of mental illness will come for treatment to a hospital where it is generally known that large numbers of much retarded mental defectives reside. Also there are the interests and welfare of the mental defectives themselves to be considered. As we saw in the various day-rooms groups of lower grade patients all with few exceptions idle, and not a few living almost a vegetative existence, we were forcibly reminded of the mental and physical deterioration that sets in at a comparatively early age when defectives receive no training during the periods of childhood and youth.

We recognize that the responsibility for making proper provision for the mentally defective is not the statutory duty of the Mental Hospital Committee. But we take this opportunity of urging as our colleagues have done on several occasions in the past, the great need in this area for the development of the mental deficiency colony.

The administrative problems are much complicated and the duties of the nursing staff are made more exacting by the overcrowding in the day-rooms and dormitories of this hospital. The statistical returns show an excess of 52 males and of 6 females in the day-rooms and of 91 males and 35 females in the dormitories. The inclemency of the weather on the days we visited made it impossible for the patients to use the ward gardens; and therefore we were able to appreciate the unsatisfactory conditions in these day-rooms. Although much consideration is obviously given to the classification of the patients, the association of patients differing greatly in age, mental condition and bodily activity is unavoidable in the present circumstances. The general effect is most depressing.

Whilst recognising the difficulties of the nursing staff, we feel that more could be done in many of the wards to encourage and stimulate the patients to take more exercise and to occupy themselves with interesting and profitable activities. We were informed that with the exception of Sundays most of the ambulant defectives have no exercise other than that afforded by walking in the ward gardens. More frequent walks around the estate and some outside the grounds of the hospital would certainly benefit many of these patients.



Also short periods of physical exercises daily, in the ward gardens preferably and in the large recreation hall when weather conditions are unfavourable, would prevent many of the younger patients deteriorating prematurely.

References were made in the report of our colleagues who visited the hospital last year to the start that had been made in organising various recreational handicrafts. Central classes are held on both sides of the main hospital and also in the admission unit. These recreational activities are to be found in several of the day-rooms also.

The general impression we received, however, was that the extension of this work was somewhat slow. We understand that it is the same groups of patients, each about twenty in number, attend the central classes. We suggest that these classes would do better service if about two hundred patients attended them for one or two sessions each week, accompanied by nurses from the wards. When not at the central classes, patients could continue with their handicrafts in the day-rooms under the supervision of the nurses who accompanied them to the central class. We hope the Committee will encourage the development of occupational therapy by providing in the near future spacious and well-lighted buildings of the pavilion pattern, which can be constructed in a comparatively short time.

Although the day-rooms were overcrowded at the time of our visit, the patients with few exceptions were quiet and well-behaved. The natural and quite understandable but somewhat excessive zeal of the nurses for ventilating these day-rooms, in which there were so many patients with faulty habits, resulted in the temperature being too low; in several day-rooms it was no higher than 50°. The patients looked clean and were tidily dressed. This is all the more creditable in view of the fact that there are so many patients who cannot dress or feed themselves. The women's dresses were varied in pattern and style, and their general appearance was neat and pleasing. We should like a greater variety of suit patterns for the men. The marking ink stamps on the various articles of clothing are unnecessarily ugly and obtrusive. We hope much more use will be made in future of the embroidery machine in the sewing room for marking ward stocks. We discussed at the time of our visit better ways of dealing in the sanitary annexes with the soiled clothing of patients with faulty habits; and doubtless the medical officers and nurses will give this matter further consideration.

Owing to the adjustments and rearrangements necessary to cope with the scarcity of space in the dormitories, there is a considerable amount of cross-classification at night of the patients occupying the same wards during the day-time.

Since there are so many patients who need continuous supervision at night, some of the dormitories with these difficult patients are most seriously overcrowded. On examining the night reports of these and other wards we were surprised to find the numbers of bed-clothes soiled during the night so small.

We visited the kitchen in the afternoon and found it very clean and all the machines and articles used in preparing and serving the food in good condition. Earlier in the day we had seen a substantial dinner of two courses, well and nicely cooked, being served to the patients in several of the ward dining rooms. Much thought is given by the Medical Superintendent and the steward to the dietary. Whenever possible, dishes popular with the patients are included and we were glad to hear that there is a good supply of fruit for the patients.

In the laundry, where about 60 patients work daily, there is scarcity of room. In the wash-house the various machines are so close to one another that undue risk of injury to the patients exists. Although much of the machinery is of an old pattern it seems that the work of this department is done systematically and with creditable results.



At the time of our visit there were 1,410 patients in residence—642 males and 768 females. Of these, only 15 (14 voluntary and 1 temporary) patients were at the hospital under the terms of the Mental Treatment Act. An examination of the statistics for 1936 gives the same disappointing feeling. Of the 239 patients admitted only 18 were received on a voluntary and only 7 on a temporary basis. This unsatisfactory operation of the Mental Treatment Act is obviously a matter which deserves serious consideration. In many areas the Visiting Committee and their officers, in co-operation with the Public Assistance Authority, have been successful in inducing patients and their relatives to avail themselves of the privileges afforded by this Act.

Now that the hospital has a modern, well-equipped, and in every way admirable admission unit, we hope that patients will come here voluntarily in larger numbers and at an early stage of their illness. There are undoubtedly difficulties peculiar to rural areas in the administration of a new Act, but we hope these will prove to be an added incentive rather than a deterrent to all who are interested in the mental health service of this large county and its associated areas.

Amongst the chief developments contemplated in the near future are the reorganisation of the sewage system, the erection of a nurses' home, and the introduction of a sound cinema. We should like to express the hope that a central canteen will soon be a feature of this large hospital.

The death-rate for the year ended December 31st, 1936, was 80 per 1,000 for the men and 60 per 1,000 for the women. Since the last visit, ten months ago, there have been 78 deaths (male 44, female 34) followed in 56 cases by post-mortem examination. The principal causes of death were—heart disease (29), pneumonia (11), organic brain disease (6), general paralysis (5) and tuberculosis (5). Inquests were held in 6 cases—the verdict in two of these being natural causes, and in the remaining four "misadventure." The circumstances of these enquiries have already been related to our Board.

The hospital continues free from dysentery, but between last November and January of this year four female patients were attacked by enteric fever, death ensuing in one case. Bacteriological investigations were carried out on all patients in the wards from which these four came and on all suspected carriers, but these investigations failed to produce the source of infection. The three convalescent patients are segregated in a ward with others who have previously suffered from this disease, and all necessary precautions are taken to prevent the possible spread of infection.

Influenza has been prevalent in the hospital for the past four months, affecting 64 male and 98 female patients. All have made satisfactory recoveries.

At present 12 patients (male 5, female 7) are suffering from tuberculosis in active form.

Only 35 men and 44 women were being nursed in bed at the time of our visit. This figure represents the low proportion of 5·5 per cent. of the total patients in residence. The majority were in bed on account of old age and debility. All are in receipt of good medical attention and kindly and sympathetic nursing care.

During the period under review, there have been 12 major casualties. All have been in the nature of simple fractures—9 from accidental falls, and 3 sustained during struggles with other patients. All these fractures have been examined by the hospital X-ray apparatus.

The present nursing staff consists of 25 charge nurses (male 11, female 14), 153 ordinary nurses (male 71, female 82), and 30 nurses (male 12 and female 18) are allotted to night duties. Two female nurses are employed in the male infirmary ward. Only 9·6 per cent. of the female staff are certificated or registered as mental nurses, while 61·7 per cent. of the male staff are so qualified.



## LINCOLNSHIRE (KESTEVEN) MENTAL HOSPITAL, RAUCEBY.

*July 21st, 1937.*

At this hospital, the present is a period of considerable developments. The admission unit is nearly completed, the nurses' home will probably be ready for occupation next summer, and the erection of a new villa for female patients has begun. The opening of these units will make next year an important landmark in the history of the hospital.

The provision of a modern admission unit should bring in its train many beneficial changes. Not infrequently such units have effected a new orientation towards the treatment of mental illnesses especially in their early stages. In the past, the patients in many instances have postponed entering the hospital until their condition has become so advanced that the prospect of a cure or even of a remission has become remote. In order to ensure that the new admission unit will receive the type of patient for whose needs it is primarily designed, certain preliminary measures should be taken; and now that the unit is almost ready to receive patients we would urge that no time should be lost in undertaking these measures. One of the first steps should be the appointment of an assistant medical officer. The need for additional medical staff at this hospital has been recognized for some years; and we are glad to learn that the Committee will make an appointment at an early date.

Another step is the organization of more Out-Patient Centres. Hitherto, the only centre has been held at the mental hospital itself, but comparatively few patients have attended this centre. The establishment of clinics at three or more convenient centres in the area served by the hospital is envisaged. Each clinic should if possible be held at least once a week. At the outset a special effort should be made to secure the co-operation of general practitioners in sending patients to these clinics.

One other preliminary measure would be to obtain an understanding with the Public Assistance Committees and their officers as to the steps that should be taken to bring to the notice of prospective patients the provisions of the Mental Treatment Act. The new admission unit is specially suitable for the treatment of voluntary and temporary patients. So far comparatively few of those admitted to this hospital have availed themselves of the privileges conferred by the Mental Treatment Act. During the year 1936 only 6 (4 voluntary and 2 temporary) of the 89 admissions were uncertified. Now that the opening of the admission unit is within sight we suggest that the present is an opportune moment for a conference between the Medical Superintendent and officers of the Public Assistance Committees to discuss what practical measures should be adopted to make the provisions of the Mental Treatment Act better known to the general public. In passing, we may be allowed to suggest that the official opening of the admission unit affords a suitable occasion for enlisting the interest of general practitioners in this important development of the mental health service of this area.

When discussing the mode of admission we should like to refer to another matter which deserves consideration especially in rural areas, namely, the desirability of bringing patients from their homes direct to the mental hospital. Of the 89 admissions during the year 1936 to this hospital no fewer than 34 came from the public assistance institutions. Comparatively few of such institutions in the rural areas have any of the amenities desirable when nursing mental patients. When the admission unit is open to receive patients it will be advisable from every standpoint to bring the patients here direct from their homes. This also is a matter in which the co-operation of the mental hospital committee and those of the respective public assistance authorities can do much.

The general fabric of the main building is kept in a good state of repair and the extensive grounds afford employment to a good number of the male



patients. The internal decorations of the day-rooms and dormitories is done systematically. The staff deserve special credit for the high standard of cleanliness maintained in all departments of the hospital. Whilst generally the day-rooms are well furnished, we should like to see more comfortable chairs supplied in some of the day-rooms, especially those occupied by some of the male patients who are able to appreciate comfort. Although we did not visit any of the day-rooms after dark, we have grounds for thinking that the artificial lighting is inadequate in some of the rooms. We noticed that many of the electric lamps were of a low candle power.

An examination of the ward stock lists indicated that the supply of clothing is good. The patients are neatly dressed. We discussed with the Medical Superintendent and the Matron the possibility of marking the undergarments of each patient. This is a privilege much appreciated by patients at many of the hospitals we have visited; and we hope it will be found practicable to extend this privilege to all the patients at this hospital in the near future.

Each side of the hospital has its own canteen which is very small. A central canteen on a larger scale would, we feel sure, be much appreciated by the patients. Whilst we recognize there is a scarcity of rooms at the hospital we hope the committee will give this matter further consideration.

In going round the ward gardens we felt that a number of patients whom we saw idle might with advantage be taught simple handicrafts and made to mix more with other patients at games and exercises. We discussed this question with the Medical Superintendent and we understand that lack of suitable accommodation combined with a shortage of nursing staff at present makes it difficult to conduct occupational therapy on a systematic basis. We hope in time these difficulties will be overcome, and that this important method of re-teaching patients to co-operate with others will be more fully developed and extended. Obviously one of the first steps necessary to this end will be to afford means of training in this branch of the work to certain members of the nursing staff.

The general health of the patients has been good. Apart from an outbreak of influenza in the early part of this year, there has been an entire absence of infective disorders such as enteric fever, dysentery or tuberculosis. Two patients have sustained simple fractures due to accidental falls. All casualties have the benefit of examination by the X-ray apparatus with which the hospital is now equipped.

At the time of our visit, 14 men and 18 women, i.e. 6·4 per cent. of the total number in residence, were being nursed in bed. All showed evidence of careful nursing and skilled medical attention. Simple pathological investigations are carried out in the hospital's laboratory but for more complicated examinations, e.g. the Wassermann of every admission, specimens are sent to London.

Some rearrangement of the ward medicine cupboards and their contents is necessary to ensure that all poisons are kept in a special compartment and that all "Schedule 1" dangerous drugs should be so labelled as to indicate their nature.

The death-rate for the year ending December 31st, 1936, was 7·6 per cent.—male 7·1 per cent., female 8·1 per cent. Since last November there have been 29 deaths (M. 12, F. 17) followed in 15 cases by post-mortem examination. Among the principal causes of death were heart disease (6), pneumonia (5) and senility (4).

The present nursing staff consists of 15 charge and 51 ordinary nurses. Of the latter 6 of each sex are available for night duty. Twenty-five men and 16 women are certificated or registered as mental nurses, while an additional 3 men and 10 women have passed the preliminary examination.

At the time of our visit there were 496 (M. 241, F. 255) in residence: and 5 patients were on leave. There are only 7 patients resident here on a voluntary and none on the temporary basis. Eighteen are private and 12 are service



or ex-service patients. On the male side of the hospital there is a deficiency of 14 places by day and night; whereas on the female side the deficiency is 45 by day and night.

Dr. Henderson has the assistance of Dr. Aslett for whom the Committee have built a residence in the grounds of the hospital.

#### LONDON COUNTY MENTAL HOSPITALS.—1. BANSTEAD.

*March 4th and 5th, 1937.*

We have spent two days in this hospital where there are now 2,730 patients classified as follows :—

						M.	F.	Total
Voluntary	...	...	...	...	...	38	34	72
Temporary	...	...	...	...	...	1	3	4
Certified	...	...	...	...	...	1,143	1,511	2,654
						<hr/> 1,182	<hr/> 1,548	<hr/> 2,730

In addition 63 patients are out on long leave or trial and 8, one man and seven women, are boarded out (Sec. 57).

The recognized day space is not exceeded, but by night there is an excess of 64 beds, 26 on the mens' and 38 on the women's side.

The following are our comments on some of the many activities we saw in the course of our visit.

*Sick nursing.*—On the second day of our visit there were 285 (M. 105, F. 180) patients—approximately 10 per cent. of the hospital population—being nursed in bed. Those in bed, chiefly for physical conditions, numbered 159, and the remainder were in bed chiefly on account of their mental condition. Much use is made here of the single rooms for nursing the more restless and noisy patients. We were glad to find that two mattresses were supplied to patients who had to sleep on the floors of these rooms, and that a good supply of blankets was available, especially since the temperature of these single rooms, many of which are not heated, is low during the winter time.

A scheme for the improvement of the padded rooms throughout the hospital has, we understand, been submitted to our Board. We saw a number of these rooms in going round the hospital and in addition to other disadvantages, we noticed the lack of modern facilities for heating. In padded rooms, where patients are often restless and throw off their clothing and may also be of defective habits, there should be means of maintaining a higher temperature than is needed in the wards and also of ensuring good ventilation.

In making any improvements we hope the Committee will take the question of heating into consideration.

The admission unit has excellent facilities for nursing sick patients. At the time of our visit most of the occupied beds were on the verandahs but it was deemed advisable to take the patients back into the wards for meals. The provision for sick-nursing in the main building falls short in many respects of modern requirements. A good proportion of the sick patients in these units are nursed on the first and second floors where there are no verandahs and even on the ground floor relatively little provision has been made for nursing patients in the open air. It is in the medical treatment and nursing of the tubercular patients (33 cases at present) and those suffering from infectious conditions that the limitations and drawbacks of these units are felt most acutely. With present conditions it must be difficult for the medical and nursing staffs to maintain even moderate standards of hygiene in these wards.



Doubtless the Committee recognises the need for better facilities for nursing the sick at this hospital and when the convenient time arrives will deal with this problem in a comprehensive way. In the meantime we would urge that fixed wash-basins for the nurses' use should be introduced into all the sick-wards where their installation would be a relatively simple matter.

Steps have been taken to conform with the new regulations of the Dangerous Drugs Act. Each medicine cupboard has now a small internal cupboard for the new preparations, with a separate lock and key, and indicated by a red label "Special," and this cupboard is in addition to the usual "Poison" cupboard.

*Mortality.*—The death rate for 1936 was 5 per cent. of the hospital population: post-mortem examinations were made in approximately 76 per cent. of the cases. Recently the mortuary has been considerably improved. The viewing and post-mortem rooms now have separate entrances; the walls of the latter have been tiled and two new marble tables provided.

Two inquests have been held during the period under review. In one case the patient strangled himself with a sheet. The other was a case of a woman who asphyxiated herself by pressing her face into the gutter of the padded room. This exceptional method of committing suicide indicates one of the many objections to narrow single rooms.

Whilst the number of "suicide" cards is relatively small at this hospital, several of the patients in respect of whom cards are issued require close and continuous supervision. On each side of the hospital the most acute cases are segregated in one of the sick wards, and the nursing arrangements are such as to ensure efficient supervision of such cases. We welcomed the opportunity of discussing with Dr. Petrie the need in the interest of the patients and also the nursing staff for certain modifications of the directions on the card; and we were glad to learn that this matter is being considered at present by the Medical Superintendents of the London Mental Hospitals.

*Fractures.*—In the course of the last 7 months 12 patients have sustained fractures. This number gives an incidence approximate to the average for all County and County Borough Mental Hospitals. The records show in an exaggerated degree the usual sex disparity—10 females and only 2 males. With the exception of two received during altercations with other patients, all the injuries were due to accidental falls. The greatest care is taken to ensure an X-ray examination of all cases in which it is thought that possibly a bone has been damaged, and no time is lost in re-setting the bones if there has been any displacement; consequently the patients with rare exceptions suffer no permanent disability. In several wards we examined the "casualty" books and there is every indication that all injuries, however slight, are recorded systematically.

*Dysentery.*—Last August and September, 13 cases (all women) of dysentery, mostly of the Sonne type, were diagnosed. At present there are no active cases. Some members of the staff who live outside the hospital also seem to have had some of the symptoms observed in the infected mental patients but none of the staff yielded positive findings on being examined bacteriologically. To prevent the spread by the water supply of such infection in the future, a very simple, neat and efficient chlorinator has been installed in one of the boiler houses.

The hospital has had no fewer than 159 cases of influenza amongst the patients during the last two months; and 29 (26 of whom were women) of the nursing staff also have suffered from influenza this winter.

*Nursing staff.*—At present there are 419 charge or ordinary nurses on the staff of the hospital; 49 are allocated for night duties. During the morning there is on an average one nurse to 15 patients (the corresponding mean number for all County and County Borough Hospitals is approximately 11); and during the night there is one nurse to 74 patients (the mean being 55).



The large day-rooms and dormitories enable some economy in staff to be effected. Recently, however, it was decided to strengthen the night staff by the addition of one sister. We discussed with Dr. Petrie some of the details of supervision in those dormitories where there are numbers of sick or epileptic patients and those with defective habits.

*Occupation and recreation.*—We noticed the growing activity and the interest shown by the medical and nursing staff in the development of occupations and recreation. The male shops, though small, are active and well filled with patients who, from the therapeutic and from the economic point of view, are best employed in utility work. A new shop has been opened for the men where good carpentry is being carried out and the small women's centre has been enlarged. Lectures are now being started for the chief charge nurses and charge nurses with the object of furthering classes in simple handicrafts. In many of the wards classes are now a regular practice and some physical training is undertaken for deteriorated patients. Football is played by the men; there have been 6 games with outside teams this winter and the matches are popular also with patients who can only be onlookers. It is usually more difficult to inspire women with a desire to play outdoor games and we are specially interested to learn that 20 girls have recently become keen about netball; some of them are difficult patients for whom this outlet may prove of real value in providing an objective for activities otherwise misdirected.

In looking at the more disturbed patients pacing round the ward gardens we felt their need too for all possible organised outdoor occupations and activities (e.g., organized walks, rolling and drawing carts in teams, etc.) to take the place of the aimless "airing court" exercise which is such a distressing feature of mental hospital life.

It will be seen that the needs of the patients whose habits can be improved, though they are incapable of useful work, is kept in view, but in this large hospital there is much ground to cover and future needs, we think, include larger occupational centres as well as the further development of habit-training and occupational work in the wards by nurses under the expert guidance of an officer experienced in specialized training methods.

The male working patients receive 1s. 1d. in tobacco each week; the women are allowed extras or privileges but receive no payment in cash or kind. We believe that if the Committee could arrange to make a token payment to both men and women, to be spent in the Canteen, it would introduce a new and very normal interest into the patients' lives.

*Diet and Kitchen.*—We saw an appetising meal being served at well-set tables in the admission villa and two patients on invalid diet in bed agreed that the soup was "delicious." The main kitchen, under a kitchen-superintendent, appears to be well organised and the methods of preparing the food carefully thought out. A new dough mixer and two Berkel slicers have been provided since the last visit.

*Clothing and Storage.*—We should like to congratulate the staff on having taken the initial steps in introducing individually marked underclothing. This has involved some reorganisation in the laundry and sewing room and, when each patient has the necessary three sets of underclothing, some rearrangement in the store rooms will be needed so as to allow a pigeon hole for each patient's clean clothes. But it is interesting to hear from the Matron and from the Laundry Superintendent that no real difficulty is experienced in these new arrangements which must relieve many patients from a feeling of degradation.

We discussed with the Matron a simpler method of marking the clothes and linen and suggested to Dr. Petrie that the use of a marking-machine would do away with the ugly black stamp that disfigures, and often rots, the material.



The new steel cupboards in the admission and convalescent villas, in which patients hang their clothes at night and which can be locked, is a really satisfactory way of disposing of clothing in the dormitories. In many of the other wards, clothes trolleys made in the joiner's shop, are in use for the same purpose.

*Other recent improvements.*—Amongst many of the minor improvements introduced recently is the provision of 67 fire extincteurs and sand pails as directed by an officer of the London Fire Brigade. In the laundry a new ironing machine has been installed and in the near future another calender will be provided.

*Social Work.*—We were sorry not to see the Social Worker who was ill, but we realise the value of her work to the medical staff. Valuable reports on new patients are also sent in by the social workers attached to the observation wards.

We were accompanied by Dr. Petrie and Dr. McCartan and some of the assistant medical officers, who gave us full information on questions of administration and on individual patients.

#### LONDON COUNTY MENTAL HOSPITALS.—2. BEXLEY.

*October 6th and 7th, 1937.*

During our visit to this hospital on October 6th and 7th we were accompanied throughout by Dr. Clarke, the Medical Superintendent, and had the assistance of the Medical Officers in charge of their respective divisions.

Having visited all the day-rooms, dormitories, and main departments of the hospital, we believe that all the patients have had the opportunity of speaking to us. We gave a private interview to 2 patients and conversed with a large number who wished to discuss various matters. Requests or complaints were, in the main, associated with their necessary detention in the hospital, but in one case complaint was made of bruising as a result of rough handling. One of us examined the patient and found the bruise to be of a minor character; we were satisfied that it was accidental and that it occurred during the necessary control of the patient in a state of excitement.

There were on the books the names of 2,238 patients—1,094 males and 1,144 females. Of these 78 were of the service or ex-service class, and similarly recorded as private patients there were 21 men and 37 women.

Thirteen men and 14 women were absent on trial and one male patient was absent without leave.

There were actually in residence 2,210 patients—1,080 men and 1,130 women.

The total accommodation approved for men and women respectively is 1,056 and 1,124 by day, 1,099 and 1,146 by night. The deficiency of accommodation calculated on these figures is for 38 men and 20 women by day and, by night, there is excess accommodation for 5 men and 2 women.

The weekly maintenance charge is 26s. 10d. and the average maintenance cost is 25s. 8·5d. For private patients the weekly charge ranges from 26s. 10d. to 32s. 8d.

During the year 1936 direct admissions totalled 377—172 men and 205 women, of whom, respectively, 48 and 50 were admitted on a voluntary basis, 124 and 143 under certificate and 12 women as temporary patients. The voluntary admission rate expressed in percentage was 27·6 of the total.

Departures and discharges during the same period numbered 257. Of these, 71 were voluntary patients, 5 were temporary, and 181 certified. Those deemed to have recovered numbered 14 in the voluntary group, 2 in the temporary, and 107 in the certified. Thus expressed in percentage the recovery rate for all classes was 32·6.

It will be noted that the number of patients admitted on a temporary basis is still very low.



The nursing staff totals 377 of whom 32 male and 46 female rank as charge nurses, 117 and 135 as ordinary nurses, and 20 and 27 as night nurses. Of the male nurses 150, and of the female nurses 85, are certificated or registered as mental nurses.

The death rate for the year ending December, 1936, was the low one of 4·9 per cent.—male 5·3 per cent, female 4·6 per cent. This compares favourably with the general average of 6·8 per cent. for all mental hospitals in England and Wales.

Since the last visit, 20 months ago, there have been 184 deaths—male 78, female 106. Post-mortem examinations were carried out in 67 per cent. of these. Among the principal causes of death were heart disease 39, pneumonia 31, bronchitis 17, cardiovascular degeneration 15, influenzal pneumonia 13 and organic brain disease 10.

Apart from a severe outbreak of influenza in the early part of this year, affecting 339 patients, the general health has been good. There have been 4 cases of lobar pneumonia, 2 of scarlet fever, 1 of chicken-pox and 1 of dysentery. The only infectious disease now active in the hospital is tuberculosis from which 13 men and 13 women are known to be suffering. Where suitable, these patients are nursed out-of-doors on a verandah, and all necessary precautions are taken against possible spread of infection by linen or utensils.

At the time of our visit 45 men and 68 women were being nursed in bed. These figures represent 5·1 per cent. of the total patients in residence, and many of those in bed were undergoing special forms of treatment to which reference will be made later. During the period under review there have been 38 major casualties; composed of 35 fractures, 1 dislocation, and 2 burns. Of these 22 were caused by accidental falls; 9 were the result of the actions of other patients; 2 happened on the football field; 2 were self-inflicted; in 2 cases the cause was not ascertainable, and the remaining case occurred while the patient was at work in the general kitchen. All fractures had the benefit of X-ray examination.

Throughout the wards we were favourably impressed by the quiet behaviour of the majority of the patients, and this despite temporary overcrowding due to ward decorations and alterations. Four male wards and 2 female are open to the grounds while an additional 2 male and 5 female are open to the ward gardens.

The day-rooms generally were in good order, many having been recently redecorated in light colours giving a bright, pleasing effect. There is an adequate supply of indoor games and daily papers to each ward, but it seemed to us that the stock of books might, in most wards, be definitely increased and arrangements made for the more frequent changing of such books.

In all wards on the female side tea is made and served in tea-pots and we were pleased to hear that this commendable practice is steadily being adopted in the male wards also.

We were particularly impressed by the excellent condition of all bed-linen and the general comfort of the dormitories. We were interested to learn that the sanitary annexes adjacent to the dormitories are left open at night.

Examination of stock lists showed a liberal supply of articles of clothing in each ward, and the dress of the male and female patients appeared to us to be of good quality, neat, and attractive. We hope, however, that the wearing by men of white socks, which is fairly general, will be gradually discontinued.

Store-room accommodation continues to present a difficult problem. In the smaller wards it seems feasible that reorganisation of existing space and the fitting of rods and hangers in place of the present shelves might prove helpful but, for the larger wards, the only permanent solution will be the conversion of a single-room into a store-room. Such a change has already been effected in female ward L.1 where the appropriation of single-rooms has resulted in a sorting out of ward-stock and clothing in a proper and orderly manner with considerable easing of the difficulties of the nursing staff in this direction. We would like to see similar improvements introduced into other



wards, particularly where the number of patients is large or where ward stocks are heavy. We quote, as an example, ward K.1, an infirmary ward on the male side. In this ward, incidentally, we consider the sluice room arrangements poor and in need of remedying.

Central occupation therapy classes are held morning and afternoon, 40—50 attending on the male side under an instructor, and 30—40 on the female side under an instructress. We were able to see only the male centre activities (owing to the illness of the female instructress) and were impressed by the ingenuity exhibited in turning out useful and attractive articles from what is often treated as scrap material. The work of this department is extended to a limited degree only into the wards and we must comment on the large number of patients, many of them young, who were apparently idle and unoccupied. We were glad to learn that a weekly class in handicrafts is held for the female nurses and the hope is held out that they will in turn introduce into the wards, for the benefit of their patients, the knowledge of handicrafts thus acquired.

Among improvements effected since the last visit those carried out in female ward L.1 have been briefly referred to. Further, in reference to this ward, we noted with pleasure its attractive colour schemes, modern furnishings, and improved sanitary and lavatory conveniences on both floors. In addition, heating of staff bed-rooms on the female side has been carried out. Three hydro-extractors have been installed in the laundry and additional equipment will shortly be added in the shape of 24 gas-irons, a glad-iron and a collar machine. Other improvements contemplated are not a few in number, but those to be carried out in the kitchen seem very desirable, e.g., the substitution of small kitchen boilers for the larger type, the provision of a mechanical dough-mixer, a griller, and extensions to the hot-plate system.

As a detail affecting the comfort of patients we would mention also the proposed provision of drinking-fountains in the ward-gardens and sports field.

The most recent advance in the treatment of patients has been the introduction of Cardiazol for schizophrenic conditions. This new form of treatment was introduced by Dr. Cook, the deputy superintendent, after a course of study on the Continent. We were given a demonstration of the technique of this treatment and, although the medical officers concerned hesitate to speak dogmatically as to its permanent effect, they are satisfied that in a number of cases the results have been most encouraging. To summarise the results so far obtained—on the female side 13 completed a course of treatment and of these 5 recovered, 2 showed marked improvement, 3 slight improvement, and 3 showed no change; 9 others are at present receiving treatment and the results to date are satisfactory. On the male side, 17 patients completed the course and of these 3 recovered and 4 show marked improvement; 8 patients were having injections at the time of our visit. As in other special forms of treatment it would appear that the shorter the duration of the mental condition the more satisfactory are the results.

#### LONDON COUNTY MENTAL HOSPITALS.—3. CANE HILL.

*September 10th, 1937.*

Owing to its original scheme of construction and lay-out this hospital suffers in comparison with many of those more recently built in the matter of nursing facilities and utility rooms in the wards. Thus we could not avoid being struck by the lack of clinical rooms, storage accommodation for patients' outer garments, and facilities for hand-washing in the nursing dormitories. We noticed also that in none of the wards was there proper provision for the scrubbing of mackintosh sheets. Great efforts are being made to overcome some of these difficulties by such means as the installation of cupboards fitted with coat-hanging equipment and the conversion, as opportunity offers, of suitable single rooms into clinical rooms, but much



remains to be done in all these respects to render the provision made adequate and satisfactory. In spite of these handicaps we were well satisfied with the running generally and the devotion to duty of the nursing staff.

On the first day of our visit there were on the statutory books the names of 2,245 patients, in the proportion of 890 men to 1,355 women. Thirty-one patients are at present absent on trial, leaving a total of 2,214 patients in residence, of whom 48 (29 men and 19 women) are voluntary patients, and two women temporary patients.

During the year 1936 just over 12 per cent. of the direct admissions were received on a voluntary basis, the corresponding percentage for temporary patients being 1·7. This latter figure is admittedly disappointing and compares unfavourably with the average figures in this respect for all mental hospitals in England and Wales.

Upon the figures submitted to us there is a deficiency of accommodation by day for 38 men and 30 women and by night for 33 men and 29 women.

The general appearance and behaviour of the patients were satisfactory and it was evident to us that much attention is paid to their individual needs and comfort. We were especially pleased with the neat appearance of the women, the material and style of whose clothing were attractive. We were interested to find that a large proportion of the men's suits and also of the women's stuff dresses were sent out of the hospital to be dry-cleaned, instead of being washed in the laundry. This practice appears to us to be advantageous from the points of view of preventing shrinkage and retention of fit and cut of the garment dealt with.

The wards generally were tidy and well kept. The installation of electric lighting throughout the hospital is making good progress and on one side only one ward remains to be completed in this respect. All wards are being re-decorated on completion and we were very much pleased with the re-decoration already executed on the male side, which is in tasteful colours and produces a light and cheerful effect. There is a considerable difference between the male and female sides from the point of view of brightness and general appearance of comfort and many of them gave us an impression of bareness. Quite apart from re-decoration, which will no doubt be proceeded with according to routine, we feel that much might be done in small ways to brighten the aspect of the men's wards and improve their comfort. The almost complete absence of flowers and pot plants in them was very noticeable.

It is somewhat disturbing to find that the men's admission ward is still being used to accommodate female patients. In addition to the very considerable disadvantage which must inevitably be presented by a ward in either division being used for patients of the opposite sex, its use for the women has resulted in the recent male admissions being deprived of a separate garden, as a consequence of which they were yesterday taking exercise in an over-crowded garden in company with patients from 5 other wards, many of whose illnesses were of long standing. We cannot but consider these conditions as unsatisfactory. Further, we do not regard either the existing women's admission ward or the original male admission ward as fulfilling present-day requirements owing to the lack of facilities for proper classification and the absence of really up-to-date nursing conveniences.

We visited the stores department and discussed with the steward many details relating to diet. The scale generally appears to be a good one, and the variation required by day to day need is well met. On one of the days of our visit dinner consisted of roast beef, potatoes and greens, with a second course of stewed figs and custard. Both the breakfast and tea meals contained some little extra.

Occupation therapy is developing on progressive lines and we were glad to hear that the occupation mistress now holds classes for the women nurses. Much good work was in evidence on both sides, and it appeared from conversations we had with many of the nurses that they were interested in this



aspect of their work and satisfied of its useful results. A visit to the sewing room showed that excellent work was being done in that department. The appliqued and embroidered aprons worn by patients are a product partly of the sewing room and partly of the work done in occupational classes; their effect was pleasing and cheerful. Physical culture classes have now been started on the female side, costumes being provided for those taking part. We gathered that gym shoes only were provided for the male physical training classes, but are sure that the provision of shorts and singlets would prove of advantage in many respects.

A large number of useful improvements have been carried out during the period under review, including considerable alterations in the kitchen and the installation of new machinery in the laundry. In connection with the completion of the electric lighting installation, work is at present in progress on the telephone and fire alarm systems.

We inquired into the library arrangements and were pleased that these were being reorganized. In place of the central library a separate library is being set up in each division with a view to parole patients being able to use the room allocated as a reading-room.

It was satisfactory to hear of the great interest taken by the staff in the promotion of outdoor games for patients of both sexes. The present sports ground comprises about  $7\frac{1}{2}$  acres, and, though well kept, is of too small dimensions for this large and important hospital. In view of the large number of patients and nursing staff interested in these activities we should like the Committee to consider the possibility of adding to the space available.

Parole beyond the estate is at present enjoyed by 86 men (the corresponding figure last year was three), and 48 men and 32 women enjoy a similar privilege within the grounds (corresponding figures last year, 107 for men and nil for women). Two wards and 1 villa on each side are administered on the open door principle, the wards in question being open to the ward gardens and the villas open to the hospital grounds.

During the period immediately following reception, every patient is submitted to a complete physical examination and the information obtained has sometimes an important bearing upon the mode of treatment for the mental illness. Installation of an X-ray apparatus in the hospital would facilitate a more complete physical examination which, in the majority of cases, is desirable at this stage.

There have been 39 serious casualties since the last visit of our colleagues in June 1936. In 21 cases fractures involved the upper limbs—mostly injury to the wrist occurring through falls—while in 13 cases the lower limbs were involved, fracture of the femur occurring 8 times. This latter accident occurs in old people from a fall on the hip bone. We discussed these casualties with Dr. Lilly and it appeared that in no instance could the injury have been avoided. Thirty out of the 39 patients were over 50 years of age. We draw attention to the age point because where patients are able to move about unassisted it is kinder and in every way desirable to grant them this mark of physical independence—of moving about freely—even though they may be liable to accident.

The mortality rate for the year ending December 31st, 1936, was 4.8 per cent., the number of deaths being 128. A post-mortem examination was made in 78 per cent. of the cases. There were no instances in which bedsores existed at death in any of those who died. The chief causes of death were heart disease (46), pneumonia (31), cancer (11), tuberculosis (10).

Inquests were held on two occasions. In one case, where the patient had sustained a fractured femur, a verdict was returned in accordance with medical evidence, there not being sufficient evidence to show whether the injury had been sustained accidentally or otherwise—the patient had apparently fallen while attempting to get out of bed. In the other case the patient was out on leave, and, being an epileptic, died during a fit.



There was an outbreak of influenza during January and February 1937, involving 71 males and 124 females. A few cases also occurred amongst the staff, attacking 2 of the male and 21 of the female nurses. Since the last visit 10 men and 11 women have been found to be suffering from tuberculosis. There have been no cases of enteric fever or dysentery, and there are no known carriers or excretors of these diseases residing in the hospital.

The present number of staff is 389, 159 men and 230 women. The nurses certificated or registered as mental nurses number 239, 133 (or 83·6 per cent.) men, 106 (or 46 per cent.) women. In addition 15 men and 62 women have passed the preliminary examination. The distribution of staff in the wards appears to follow general practice. The work of nursing in some instances is made difficult by the large size of the wards, but we were satisfied in every case in which we made inquiry that the nursing reached a commendably high standard.

Dr. Lilly has as his Deputy Dr. Napier Pearn and is also assisted by Drs. F. Morris, A. Walk, J. R. Murray and E. N. Butler, with two other medical officers who are doing locum tenens duty.

#### LONDON COUNTY MENTAL HOSPITALS.—4. CLAYBURY.

*8th October, 1937.*

In the course of to-day, yesterday and part of the previous day, we have paid the annual visit to this large hospital on behalf of our Board, seeing, we believe, all the 2,383 patients in residence and visiting practically every part of it, including the farm.

For some time past and, we fear, for some months to come, a certain amount of disorganization of wards and, therefore, of classification of patients, must exist while electrical rewiring of the whole hospital is being carried out and the consequent redecoration completed. This is a much bigger undertaking than some may realise, but it is progressing with the minimum of disturbance and did not in any way detract from the interest and satisfaction derived from our visit.

Apart from the unavoidable disturbance and disarray above-mentioned, it seemed to us that the whole place is in first-rate order and that in a variety of ways—some small (such, for example, as the provision of pencil sharpeners in many wards) and some of more moment, such as care given to the furnishing of the wards and staff rooms, to the up-to-date hairdressing and other toilet facilities for patients of both sexes, to ready means of steam-pressing their clothes, and the maintenance of good fires—much thoughtful care is given to the comfort of both patients and staff. In no other hospital can we recall a better or more artistic display of pictures on the walls, and this without hint of extravagance; in some of the corridors and elsewhere their subject matter relates to the hospital itself, and the arrangement has been directed to the enlightenment of visitors and, therefore, of the public mind as to mental hospital treatment.

With regard to services of a more strictly medical character, light and some other forms of electric treatment, massage, special baths (Turkish, foam and continuous) operating and dental rooms, surgeries (1 on each side) for the more convenient treatment of minor ailments, etc. and means, too, for treating the staff, it seems to us that, except perhaps as regards X-rays, the hospital is now very well equipped.

We realise—especially perhaps the one of us who can recall the occasion of the opening in 1893 of Claybury hospital—that all this has not been, so to speak, the work of a day, but that, while not forgetting the labours of those on whom fell the work of opening and developing the hospital, much of it, particularly that which reflects modern views in the treatment of mental disorders, has been the result of the standard aimed at by Dr. Barham



and of the efforts steadily pursued by him during the 20 years he has been superintendent. It is evident, too, that, besides having had the continuous support of his committee, he has been well seconded by those working under him.

In the well-kept dormitories and wards we were glad to note the retention of blinds in the former and the effective but not unsightly outside guards allowing windows to be fully opened in the wards, where plants and cut flowers, and in some instances (we could wish there were more) birds supply a welcome note of cheerfulness in aid of the mural decorations already mentioned. Some of the day-rooms are perhaps somewhat darkened by trees; but where judicious pruning will not suffice and removal is necessary, we hope that in each instance another will be planted elsewhere.

There is a good supply of books, newspapers and periodicals in all the wards and suitable patients can visit the central library. An increase in the number of full-sized billiards tables is a matter which we suggest for further consideration.

We were glad to see that small teapots for 4 or 6 persons are in use amongst the more reasonable type of patient and that the use of long tables for meals is fast disappearing.

Modern styles of dress and of underclothing have been in vogue for some time, both for women and men, and we were well pleased with the general appearance of the patients. In many instances women patients have their own private clothing and certain of the more reliable patients are provided with their own sets of institutional clothing; but this is not nearly as frequent as we should like to see it and we were informed that, on removal to another ward, a patient is not allowed to take her clothing. We agree with Dr. Barham in regarding this matter of great psychological importance.

The conversion of the old engine room into a gymnasium has provided an important advance in physical training. It is very well equipped both as regards apparatus, storage of costumes, changing rooms and shower baths. We were shown a display by male patients under Mr. Millington, the male occupation officer, which did him great credit, not only on account of the precision of movements, but more particularly because of the obvious interest he has aroused in a difficult type of patient.

Since the last visit, Orchard House has been opened as an admission hospital for male patients. It consists of 2 parts, convalescents (20 beds) at one end and an admission unit of 25 beds at the other, and is staffed by male and female nurses with a male nurse at night. Here one finds some new departures; for instance, wardrobes are provided as well as lockers and each bed has a light controlled by the patient. There is also a foam bath and a room fitted up for electrical and light treatment. The furnishing has been carried out most tastefully, and the gardens are charming.

Numerous other alterations and improvements have been carried out during the past year, including a hairdressing shop on the female side, and larder cupboards in some of the wards. The popularity of the hairdressing shop is remarkable and we are not surprised to hear that its therapeutic value is proportionate.

Alterations of the kitchen sanitary accommodation, bringing it nearer, is in progress and so also is the enlargement of the sanitary annex at the female isolation hospital. Re-equipment of the main kitchen is contemplated; also central heating at Claybury Hall; as well as many other minor but important items in various parts of the hospital.

We spent some time with Miss Williams, who is now the social worker attached to Claybury. We were much impressed with the organisation of her work and the great importance of her department, the full effect of which cannot possibly be developed by one person in such a large hospital. That this must be the case will easily be recognised when the admission and discharge rates are considered. Last year, the direct admissions averaged



about 1 a day, and the discharges were about 3 a week, and to this must be added 187 on long leave on trial.

From the statistics supplied to us, it appears that of the 2,383 patients now in residence (1,012 males and 1,371 females) 74 men and 55 women are voluntary patients and 4 women are temporary patients. Included in these numbers are 200 men and 37 women private patients, of whom 130 men belong to the service or ex-service class. There are also 14 out-county patients.

The admissions during 1936 totalled 385 and included 61 voluntary and 3 temporary patients. In the same period 187 were allowed on long leave on trial, of whom no less than 112 were granted money allowances to help them tide over this important period of probation.

The weekly maintenance charge per head is 26s. 10d. for home patients, and from this amount to 49s. for private patients. The average weekly maintenance cost as last ascertained is 27s. 2.5d.

Four wards are open to the gardens and 1 ward and cottage are open to the grounds on the male side. On the female side 6 wards are open to the gardens only. Parole beyond the hospital grounds is enjoyed by some 20 of the male patients and rather less of the women; to a few of the latter and to no less than 195 of the men parole of the grounds is accorded; thus, with respect to the men, as many as 20 per cent. have this much-valued privilege.

The mortality rate of 4.7 per cent. for the year ending December 31st, 1936, is exceptionally low but we attribute this, in part at any rate, to the absence of any serious epidemic illness during that year, and also to the fact that the majority of cases of general paralysis are deflected to another of the council's mental hospitals for treatment.

Almost exactly a year has elapsed since the last visit of our colleagues. During this period 41 male and 82 female patients have died, of whom 17 and 23 respectively were over the age of 60. The cause of death was verified by post-mortem examination in 75 per cent. of the total number and in 11 instances bed sores are recorded. When visiting the mortuary it seemed to us that there is need for better and more reverent facilities for viewing the remains of deceased patients by their relatives and friends; and that now, while the question of providing cold chamber installation is under consideration, is perhaps a favourable time to give attention to this matter. Amongst the causes of death are 40 from heart disease, 42 from pneumonia (including 7 of the influenza type), one from enteric fever contracted prior to the period under review, 1 each from dysentery and influenza, and 3 from general paralysis.

Three deaths (all males) were the subject of coroners' inquests, the particulars of which have been communicated to our Board. In one of these, a suicide by one of the barbiturates, the patient had secreted the capsules until a fatal dose had accumulated. We are satisfied that effective measures have been taken to prevent a like occurrence.

During the period, 12 male and 15 female patients have sustained serious injuries but none has proved fatal. Three of the men and 9 women were over 60 years of age and except for one laceration, all the 27 patients suffered fractures, caused accidentally in 14 instances, while 3 were due to falls in fits, 6 to interference by other patients, and 4 occurred as the result of resistance to staff during acute mental excitement.

The return of epidemic and zymotic diseases since the last visit records 2 male and 16 female patients having had influenza last January; also one case each of dysentery and lobar pneumonia, and 2 cases of erysipelas, all in females. No case of influenza, enteric fever, or dysentery is now under treatment, but there are 12 men and 6 women suffering from active tuberculosis who are being nursed under suitable conditions.

In the course of our visit to the wards we found 22 male and 29 female patients on dysentery caution cards, 10 males and 51 females on enteric caution cards, and 15 males and 37 females on tuberculosis cards. All



necessary precautions are taken to prevent infection from these patients most of whom are grouped together, and periodic re-examinations are made in the hospital laboratory to determine freedom from infectivity. Operative measures for the removal of infective foci are undertaken in suitable cases. We were glad to hear that these patients who for a long time have not shown any infectivity, though still debarred from employment in the laundry or any department connected with food and remaining under clinical observation, are allowed to mix with their fellows socially, and that not infrequently caution cards are removed with medical approval.

There were 66 male and 81 female patients in bed during our visit, roughly 6 per cent. of the respective numbers in residence. New admissions and those in bed for mental reasons numbered 19 males and 40 females; a small proportion were suffering from physical illness, including tuberculosis.

The medical and nursing arrangements appeared to be quite satisfactory. The sick wards and admission units present a bright and pleasing aspect and much care has been taken to provide those accessory comforts which, though small in themselves, make so much difference to the happiness of the patient; we refer particularly to bedlights controlled by the patient, individual headphones, adequate bedside lockers, and bed tables. We enquired particularly into the hygiene of sanitary annexes generally and with special regard to those points raised in the last entry; we are satisfied with these arrangements but agree with Dr. Barham that in certain places more modern equipment would be an advantage, and this, we understand, will be provided.

General mention has been made elsewhere in this entry anent the excellent arrangements available for the carrying out of modern methods of treatment at Claybury—with the exception of X-rays, in regard to which we agree with our colleagues who have frequently urged that this hospital should be equipped.

Unfortunately we were unable to spend much time in the laboratory. A very full description of the work of this department was contained in the last entry, and we can only say in passing that it continues to be a very active unit.

We examined some of the clinical notes kept in folder form in the ward clinical rooms and found them to be most informative and well up to the general high standard at which this hospital is maintained; we were particularly interested to see frequent notes on the volitional capacity of voluntary patients.

While visiting the laundry we enquired into the method of dealing with fouled articles. In the main, we think this is satisfactory though in certain particulars, which we discussed with Dr. Barham, original and important instructions appear to have been neglected.

The nursing staff consists of 196 males and 242 females, 6 of the latter being employed on the male side. These numbers include 57 male and 71 female charge nurses with 139 male and 171 female ordinary nurses; of these numbers 14 males and 19 females are on duty each night. Those who are certificated or registered as mental nurses represent 77 per cent. and 66 per cent. respectively of the male and female nursing staff, while 12 of the former and 43 of the latter have passed the preliminary examinations—figures which reflect great credit on the teaching arrangements.

Here, as elsewhere in hospital practice, difficulty is experienced in obtaining female nurses and, as a consequence, the ratio of nurses to patients is lower than desirable. By way of temporarily tiding over difficulties, the services of married women (about 20) formerly on the staff as nurses are being used. Not including these, nor 5 sisters, rather more than 90 (i.e., 37 per cent.) of the women nurses sleep off the premises:—13 chief charges, 12 charges, 11 night charges, 33 staff nurses and 23 probationers. There are advantages, we know, which can be claimed for this practice but, with



respect to the probationers, we suggest that they have much to gain during their period of training from the corporate, semi-collegiate life afforded by a good nurses' home.

Dr. Barham has Dr. G. F. Peters as his deputy and 7 assistant medical officers, 2 of whom are seconded for service at other institutions, their places being supplied by locum tenentes. To Dr. Barham, who accompanied us, and to each of his colleagues in their respective units, we tender our sincere thanks for the ready assistance given to us during a most pleasant and interesting visit.

#### LONDON COUNTY MENTAL HOSPITALS.—5. FRIERN.

*September 17th, 1937.*

We have to-day completed the annual inspection of this hospital on behalf of our Board. It has occupied the whole of the past two days and this morning, though one of us was unfortunately unable to be present on the first day. As a result of our visit we are glad to be able to state that the hospital continues to be most ably administered by Dr. Brander.

Yesterday there were on the statutory books the names of 1,130 men and 1,524 women, or a total of 2,654 patients in all. Patients actually in residence numbered 2,651 and included 25 voluntary and 1 temporary patient. Out-county patients total 12 and 110 patients are shewn in the private class; 66 of them being in the service or ex-service category.

Direct admissions during 1936 totalled 263. While there is, of course, no fixed relationship between the size of a mental hospital and the number of its admissions, there must be a general one and the number of admissions here in proportion to the size of the hospital strikes us as small. No doubt there is some good reason for this phenomenon but we venture to mention it because we fear that if the trend in this direction continues it may ultimately affect both classification and the utility of the hospital's medical resources.

Another matter which we notice in connection with the direct admissions is the small number of temporary patients. During 1936 only 6 patients were admitted in that category and the total for the first 8½ months of this year is only 3. This paucity of temporary patients appears to obtain more or less generally throughout the Council's area and, as a result of comparison with the figures for all mental hospitals in England and Wales, raises a doubt in our minds whether the patients in the area are being afforded to a proper extent the advantages offered by Section 5 of the Mental Treatment Act.

From the returns made to us it appears that there is a deficiency of accommodation by night for 88 men and 12 women.

A very large number of new works have been completed since the hospital was last visited by Commissioners in August, 1936. Amongst these special mention may be made of the new nurses' home with accommodation for 110, a new occupation centre for men, the installation of talking film apparatus and the provision of new machinery in the laundry and boiler house. Work is at present proceeding on, amongst several other items, the modernization of the female general bathroom and the provision of a canteen for each division.

Our visit has left us in no doubt that great attention is paid to the general comfort and well-being of the patients as well as to their individual needs. The standard of clothing is uniformly good and there is plenty of variety in the material and pattern of the women's dresses. We were interested to hear that the outer garments—suits and stuff dresses—of patients who are capable of keeping their clothing in good condition are dry-cleaned outside the hospital under contract. As many as 500–600 of the women's stuff dresses are dealt with annually in this manner.

The dietary is an ample one and yesterday we saw an excellently cooked dinner nicely served to the patients. It consisted of liver and bacon with potatoes and beans, followed by stewed apple and custard. The arrangements for heating the plates in the ward kitchens appeared quite satisfactory.



The wards and dormitories were well kept and the bedding clean and in good condition. Much redecoration has been carried out in light and pleasing colours producing an atmosphere of freshness. There was a good supply of pot plants on both sides and generally the wards appeared to be well found in the matter of books, papers and indoor amusements for the patients. The library arrangements are being reorganised; there is a room allocated to this purpose in each division where two men and one woman assist in keeping records and issuing books, etc.

Progress continues to be made in the application of occupational therapy and, though there is still a considerable body of patients untouched by this form of treatment, the organisation of it is obviously developing on sound lines. We were especially pleased with the work going on in the new male occupation centre where remarkably good use is being made of waste material of all kinds. The articles fashioned are practically all for the use of the hospital and the variety is such that there is little or no danger of unusable stocks of them accumulating. A good feature of the work on the women's side is the number of patients it has been found possible to employ in cleaning up and cultivating the ward gardens, with resulting benefit to these patients' health and habits. Further progress in occupation therapy must, of course, depend upon the number of trained staff available and we are glad to hear that the nursing staff on each side now pass through the occupation centres in rotation.

Owing to the departure of the masseuse who formerly took the female classes in physical training that branch of the women's activities has had to be discontinued. We understand also that no physical training takes place on the male side, except at the boys' villa. While the walks for male patients which are a feature here—it is calculated that in the spring and summer patients sometimes cover 7 miles a day in this way—are no doubt very beneficial, we hope that means may be found to restart physical training activities with trained staff in charge at no distant date.

Parole beyond the estate is granted to 7 male patients and within the grounds to 189 men and 105 women. Three of the male and 2 of the female wards are open to the grounds and 4 of the female villas are open to the ward gardens. An item of interest in this connection is the re-opening of the main gate of the hospital which had been closed for many years. Now that the stonework has been cleaned, this entrance presents quite an imposing appearance which will be heightened if means can be found of improving the surface and amenities of the drive up to the hospital from it.

At our visit to the various workshops we were pleased to see that many of the patients were doing useful work in which they were interested. In the room in which hair and fibre is teased for the remaking of mattresses we should like to suggest that the material, after passing through the carding machine, be caught in trays with wire or perforated tin bottoms instead of falling on the floor as at present. This would avoid the gathering up of a certain amount of dust with the material which is inevitable under present conditions.

We visited the mortuary and discussed with Dr. Brander the possibility of improving the viewing room. This question presents considerable difficulty owing to damp which, it is considered, would ruin any draped fittings. The question of panelling the walls is under consideration but, in any case, we feel that the provision of a table with suitable chapel fittings and a continuous supply of fresh flowers would improve the amenities of this room.

The general health of the patients since the last visit has been very good. In January there was a mild epidemic of influenza, 211 patients and 69 of the staff being attacked. Amongst the patients the cases were fairly equally divided between the sexes, but amongst the staff there were 28 males and 41 females attacked. Twenty-two cases of dysentery are reported (21 males and 1 female). At our visit there was only one man suffering from this complaint. Male ward 14 and male infirmary 2 were the principal wards in which these cases occurred. Every effort has been made to trace carriers. Special







Eighty-eight per cent. of the male and 47 per cent. of the female nurses are certified or registered as mental nurses and 11 men and 42 women have passed the preliminary examination. A considerable shortage of nurses exists on the female side.

Dr. Brander is assisted by Dr. G. L. Cutts as Deputy Medical Superintendent, and 7 assistant medical officers. We should like to take this opportunity of thanking him and his staff for the assistance given us during our visit.

LONDON COUNTY MENTAL HOSPITALS.—6. ST. EBBA'S, EWELL.

*March 4th, 1937.*

During yesterday and to-day we have visited all the wards and villas, and we believe we have seen all the patients in residence and given those who wished to do so an opportunity of speaking to us. The number of patients on the statutory books is 497, and as only one patient—a female—is at present out on trial the number in residence is 496. This number is made up of 127 men and 369 women; of the former, 79 are voluntary patients, and of the latter, 146 are voluntary and 11 are temporary, the remainder, 48 men and 212 women, being under certificate.

In the year 1936 there were 202 voluntary, 12 temporary and 14 certified admissions. These are most interesting figures, and are to be understood only if it is realized that this hospital is specially selected for the treatment of voluntary patients. Thirteen women are private patients, and the maintenance charge for these varies from 25s. 8d. to 30s. 11d., the charge for rate-aided patients being the former figure. The average weekly maintenance cost, as last ascertained, was 35s. 7d.

As might be expected in a hospital where so many of the patients are on a voluntary basis, a great number enjoy parole. Ninety-four (64 men and 30 women) enjoy this privilege beyond the estate and 128 (20 men and 108 women) within the grounds.

We found the patients on the whole extremely well-behaved and quiet. Many told us how grateful they were for all that was being done for them, and complaints were almost entirely absent.

The dress of patients was neat, and upon going more closely into the question of clothing we were pleased to find how far the process of modernising apparel had progressed. Knitwear jumpers and skirts for the younger women are being introduced, and we saw some of these garments in the stores. They are pleasing both as regards colours and design. The men's ties are still old-fashioned, but we were glad to hear they are to be replaced by ones similar to those worn by the general public. We would suggest that the warmer and more durable overcoats on the female side should be allocated to those wards in which the more difficult patients are housed.

We have seen something of the gradual development here of occupational therapy. This is handicapped by lack of suitable accommodation. When the proposed workshop block, which is also to contain an occupation centre, is erected on the male side, the position will be much improved. Male occupations are now in charge of a male nurse who recently returned from a full-time three months' course at an Arts and Crafts School. He has started classes in three out of the six male wards. On the female side there is an occupation officer who holds classes in a special room at the admission hospital, and also in several of the villas. The assistance of nurses in the wards should be a great help in this treatment. We were interested also to find that plots of ground are set aside for patients' gardens, in which they can work themselves. A number of men and one or two of the women take advantage of this.

So far, physical culture has not gained a footing at the hospital. We hope that it will not be long before a start is made.



The wards are at present without wireless, except for one villa where there is an excellent radio-gramophone. Wireless is now almost an essential in a mental hospital, and it is therefore gratifying to learn that the purchase of eight more such instruments is contemplated. The installation of a talking film apparatus is, we are glad to hear, under consideration.

We have talked to Dr. Wootton about the possibility of starting a hair-dressing saloon on the female side and a barber's shop on the male. These amenities have been tried and found successful elsewhere, and owing to the select type of patient should be even more so at this hospital. It is satisfactory to learn that this matter is also being given consideration.

The former operating theatre has been converted into a lecture room for nurses since our colleagues visited last year, and the new mortuary has been completed. It is very well equipped. A good approach from the outside has been made to the viewing room, and the latter is now very appropriately furnished.

The present staff of nurses consists of 9 men and 23 women of charge rank, 32 men and 51 women ordinary nurses, and 8 men and 17 women on night duty. Six women are employed as nurses on the male side. Four of the sisters are general trained, and 28 men and 37 women are certificated or registered as mental nurses. Five men and 10 women have passed the preliminary examination.

The menus of the three meals of the day are arranged on a four-weekly rotation, and a good variety in the diet is secured. The meals are all served in the wards, where the potatoes are cleaned and boiled, and where the tea is also made; at present the latter is brewed in large cans and mixed with milk and sugar before being poured into the tea-pots. It would probably be found more satisfactory, in certain wards, to infuse the tea directly in the pots and to serve milk and sugar separately on the tables.

Perusal of the diet summaries shows that particular attention is paid to the dietetic needs of the sick, and we are glad to hear, in this respect, of the frequency of the delivery of fresh fish to the hospital.

Eight deaths have occurred in the 5 months under review, 3 from pneumonia, 1 each from bronchitis and acute pulmonary oedema, and 3 from exhaustion associated with other conditions such as cardio-vascular degeneration.

Post-mortem examinations have been carried out in 3 cases.

The death rate during 1936 was 49 per 1,000 for both sides of the hospital, being 66 for men and 44 for women.

Fractures or dislocations have occurred to 4 women and 2 men; patients of ages from 51 to 63 slipped and fell (two in fits), 1 woman of 55 was pushed by another patient, and 1 man of 21 fractured his jaw in putting his head through a door panel.

About 11 per cent. of the men and 8 per cent. of the women were being nursed in bed during our visit, a number of whom, including 4 tuberculous women, were in bed on verandahs, where all appeared to be comfortable in spite of the cold weather.

The medical care and nursing are of a high standard, and the resources of modern medicine are promptly and thoroughly utilised. The new quarters for the sick, which were mentioned by our colleagues in November, offer remarkable improvements on the usual facilities for treatment and nursing.

The clinical laboratory, the equipment of which is being overhauled, deals with all the routine examinations except certain bio-chemical reactions, and we are glad to learn that blood counts are now added to the routine investigations of fresh admissions.

The hospital has been free of infections other than tuberculosis for some years.

The difficult position in which a newly discharged patient finds himself on returning to the general community has hitherto received comparatively little consideration in this country, but at this hospital a scheme has been in



operation for some time to establish such patients as are known to be unable to return to their former employment in some secure wage-earning position immediately on their leaving hospital. Part of this scheme consists in teaching those men, whose prospects in their former occupation are hopeless, some fresh craft and, in addition, to obtain a post of that kind by the time they are fit for discharge. This work is both humane and a necessity, and we trust it will be extended as opportunity offers. The patients for whom these special endeavours are made have, in several instances, been recurrent cases, and the evidence of their present success lies in the fact that they have remained without relapses for a longer period than after previous breakdowns. The assistance of the social worker of the hospital in this branch of restorative treatment is of considerable value.

LONDON COUNTY MENTAL HOSPITALS—7. ST. BERNARDS.

*3rd December, 1937.*

It is twenty months since the last visit by Commissioners was paid here, and naturally in relation to so long an interval the number of items worthy of comment are many. Foremost among these, is the loss which the hospital has sustained by the retirement in June last year of its Superintendent, Dr. Daniel, due to a continuance of the ill-health to which allusion was made in the last entry. For 34 years—no less than a third of the period during which this, the oldest of the Council's mental hospitals, has been open—Dr. Daniel had been a member of the medical staff here and for 17 years he had held the position of Superintendent; a more than usually onerous post by reason of administrative difficulties due to the hospital's age and its gradual extension to so large a size. To meet them and to modernize the institution a scheme has been in progress over a number of years, which has included the erection in 1929 of an admission hospital and of a nurses' home in 1935; in its development Dr. Daniel's intimate knowledge of the hospital's needs has been of great service. His solicitude for the personal happiness and contentment of his patients, of whom he possessed a remarkably individual knowledge, has been a conspicuous feature of his administration. We are glad to hear that relief from the strain of responsibility is effecting marked improvement in his health and we wish him many years of well-earned leisure.

Following Dr. Daniel's retirement the Council appointed Dr. John B. S. Lewis (M.A., M.D., Cantab., M.R.C.S., L.R.C.P.) who had had 15 years' mental hospital experience—first at Friern and Claybury and followed by 5 years as Deputy Superintendent at Banstead. From what we have seen of his work and the grasp he is quickly obtaining of the hospital's needs, we have confidence that his efforts will meet with the success which we cordially wish him.

There were on the books yesterday the names of 1,142 males and 1,432 female patients; of these, 147 males and 29 females are private patients, including 128 men belonging to the service or ex-service class, also 12 males and 10 females who are out-county patients. Of the total number, 17 men and 27 women are on long leave or trial. There are 39 more male and 86 more female patients in residence than the number for whom there is recognised bed space.

During the year 1936 there were 383 direct admissions in the proportion of 149 males to 234 females, of whom 13·6 per cent. were admitted as voluntary and 5 per cent. as temporary patients.

The recovery rates for the 3 categories of patients departing or discharged during 1936, calculated on the number of direct admissions, were 23 per cent. for voluntary, 20 per cent. for temporary and 35 per cent. for certified patients, giving an average rate of 31·3 per cent.

The number of patients allowed out on trial during 1936 was 125, with money allowances in 66 instances.



The weekly maintenance charge per head for Home patients is 26s. 10d. and from this to 32s. 8d. for private patients. The average weekly cost as last ascertained is 25s. 10d.

Two of the male and one of the female wards are open to the grounds and a similar number on each side have free access to their gardens.

Parole of the grounds is accorded to 194 of the men, of whom 18 may walk likewise unattended beyond the grounds. This represents 17 per cent. of all the male patients, a proportion which, having regard to the situation of this hospital, is distinctly commendable. So far this much valued privilege is given to only 35 women, but the possibility of extending it to more of them is under consideration.

A great many improvements and additions have been carried out since the last visit, particularly in regard to central heating; among them mention may be made also of the provision of sanitary annexes in ward gardens in certain situations, the improvement of storeroom accommodation, the supply of lavatory basins in the main kitchen and the installation of two electric lifts for the conveyance of clothes bins from upper wards to the laundry collectors. Also the scheme of redecoration is proceeding with pleasing effect and, wherever possible during this process, obscured glass is being replaced by clear with much advantage.

Extensive alterations are proceeding in female ward 1 which is being converted into administration offices, including offices for the superintendent, the assistant medical officers, and matron and rooms for library purposes. This seems to us a wise change, the effects of which are likely to be considerable.

All wards and dormitories were in good order, some not so cheerful as others consequent on faults of ancient construction; but, in all, we were glad to see a good supply of pot plants and even, in some instances, flowers. We would, however, like to suggest the introduction of cage reared birds which in our experience have proved such a source of pleasure in other mental hospitals.

In all wards there is a reasonable supply of papers and magazines and also of library books; but the latter are in many instances very much out of repair and have possibly not been changed sufficiently often. Perhaps it may be possible to increase the capacity of the book-binding section in the occupation therapy department. No doubt when the central library is established, in its new quarters a better organised system of exchange may be evolved; but we should like to add that, on the male side, the access which the patients have to a large number of books is unusually good and convenient.

Small tables for meals are gradually replacing the long benches, and in some wards teapots for small groups have been substituted for urns. We were also glad to see that nests of lockers are being provided for patients' private property.

Improved storage accommodation, as noted above, has been supplied in some wards including hanging presses for clothing and we hope that these facilities will be extended.

In the male working wards there is no provision for drying coats. This was very noticeable during our visit to ward 18 where the wet coats were hanging over the radiators with considerable detriment to the atmosphere.

Inspecting the medicine cupboards and having in mind the recently introduced regulations under the Poisons and Dangerous Drugs Act, we are not satisfied that the arrangements made do fully comply with Article 27 (4) of the Poisons Rules, 1935 (Statutory Rules and Orders, 1935, No. 1239), in so far as this applied to Poisons other than Schedule 1, we found, for instance several bottles of disinfectant not locked up in the inner cupboard and in some wards there was no inner cupboard at all.

We were satisfied with the general appearance of the patients and were gratified to hear that not only are special sets of clothing allotted to responsible patients but that they also have their own household linen during residence



in the hospital. It may not be out of place here to express the hope that the introduction of a hairdressing department, so popular in another of the Council's mental hospitals, may not be long delayed.

Occupation therapy is carried out on both sides of the hospital with an officer in charge. The attendance at the centres is small, but the numbers are probably as high as the accommodation will allow and in addition a certain amount of handwork is carried on in many of the wards. We think, however, that this latter branch of occupation therapy might be further developed to the advantage of many of those patients throughout the hospital who are still unemployed.

Physical exercises, folk-dancing and drill are provided for both sexes under the direction of the masseuse and a selected male nurse; but, as yet there is no gymnasium. Watching the folk-dancing classes in progress under Miss Robson, we were further impressed by the importance of this form of mental and physical exercise.

The weekly entertainments, cinema, dances and whist drives are very popular. We were interested to hear that the Chaplain has introduced a semi-religious cinematograph entertainment giving four shows during the winter consisting of an educational film and another having a moral or religious background with filmed hymns or sacred songs interposed.

The mortality rate for 1936 was 6·3 per cent. (almost equally divided between the sexes) and compares favourably with the average for the public mental hospitals of England and Wales during that year.

The statistics supplied to us show that, since the last visit of our colleagues, in April last year, 249 patients have died, of which number 54 per cent. were over 60 years of age. Post-mortem examination followed in 57 per cent. of the total deaths; not as high a proportion as is desirable. With the exception of 9 cases in which, as well as in 3 others, the Coroner held an inquest, all the deaths were from natural causes; 1 of the 9 exceptions was a case of suicide whilst out on trial, 4 were found to be due to accident, and 2 to misadventure, whilst in two instances the cause of the injury which hastened death could not be ascertained. In each of these 9 cases particulars were furnished to our Board at the time. Exhaustion due to the mental disorder was the principal cause in 21 (8·4 per cent.) of the deaths. Tuberculosis was the cause of 19 deaths (not quite 8 per cent.). As will be seen from subjoined figures this number is about equal to the number of cases notified and to the number now under treatment, a fact which perhaps suggests the desirability of a still closer watch here on the incidence of this disease.

Serious casualties during the last 20 months have amounted to 52 (19 in men and 33 in women). Forty-five of these resulted in fractures, 6 in dislocations and 1 was a case of self-mutilation (recovered). Twenty-six of these casualties were accidental, 17 were due to altercations with other patients, 5 occurred during epileptic fits, 2 were self-inflicted and 2 were instances of spontaneous fractures.

The details of epidemic or zymotic diseases occurring since the last visit include 6 cases of influenza on the female side; 1 male case of enteric fever, 15 cases of erysipelas, 6 cases of lobar pneumonia (2 staff) and 3 cases of diphtheria amongst the female staff. Also 20 cases (11 men and 9 women) have been notified as suffering from tuberculosis. There were no patients suffering from infectious illness during our visit except 19 cases (8 men and 11 women) under treatment for tuberculosis who were on the verandahs set apart for their use. The verandahs, we understand, are to be reconstructed; when this is done, we hope that it may be found possible to equip each with a sanitary annexe including a sluice sink and bath; also that accommodation may be provided for storage of crockery and other articles separate from the wards to which these verandahs are attached. In certain of the wards the doors to the staff sanitary conveniences are only of the dwarf pattern; rectification of this matter probably will not present serious difficulty. Another deficiency, the making good of which we hope will not be long delayed is the



shortage, indeed, nearly absence, of clinical rooms. For instance, in one ward (an important one) the room partially adapted for this purpose has to be used as a patient's bedroom by night.

No case of dysentery has been reported here since February, 1934. There are, however, about 30 of each sex remaining on caution cards to be found in many of the wards. They are subjected to quarterly bacteriological examination but are not excluded from social contact or from employment except in connection with food and the laundry. It has not been considered necessary to examine new admissions for dysentery or to adopt any method of immunization.

The older sanitary arrangements are being gradually modernized and tiled floors will replace the existing cement; also new baths are being installed. Hot water has not yet been laid on to the older wash-basins. In many wards this may involve an engineering difficulty which we hope may be overcome. We do, however, trust that it may be found possible to instal basins fitted with hot and cold water in all wards where patients are nursed in bed.

There were 137 male and 243 female patients in bed during our visit; that is, respectively 12 and 15 per cent. on each side; but some of these were only in bed for part of the day-time. About half the male and a third of the female patients, including recent admissions, were in bed for mental reasons or observation. The patients evidently are in the hands of capable nurses and receive every attention. We drew attention to the lack of smoothness of the bed linen, due, we feel sure, to the recent disorganisation of the laundry, but important from the point of view of nursing. When in wards 6, 9 and 18, on the women's side, and having regard to the type of patients in this group of wards, it occurred to us that perhaps the installation on the ground floor of continuous baths might prove of much value.

We spent a considerable time in the ward set apart for the treatment of female cases of schizophrenia by insulin or cardiazol. This ward is staffed by specially trained nurses working under the direction of Dr. Leonard Russell and the treatment is carried out under the best possible conditions. So far only women patients are treated by insulin; but Dr. Lewis has in mind the adaptation of other accommodation which will enable larger numbers to be dealt with. On the male side Dr. Moloney is using cardiazol in the treatment of this form of mental disorder. So far 27 patients have had or are having insulin; 17 have completed the course and 5 are still under treatment.

When in the stores and bakehouse we were interested to learn the extent to which patients are expressing a preference for whole-meal bread. Some 25 per cent. of the loaves are now of this kind. This has come about by leaving the patients entirely free to choose between it and white bread.

In the laboratory, where there are now two assistants, we were supplied with details showing the useful activities of this department in routine and special examinations. We hear that Dr. Cameron in conjunction with a colleague has concluded a research on "impedance angle observations in the psychoses" the results of which may be published shortly.

We enquired into the collection and treatment of fouled and infected linen. In certain particulars we suggest that additional precautions and a variation of treatment should be considered. The collection in metal bins transported to the grounds by means of outside lifts is admirable, but in some instances no distinctive marks appear on the bins while in others it takes the form of a label easily removed during sterilization. In the laundry we are not convinced of the necessity for removing soil by brushing. For articles known to be infected we are glad to hear that a new autoclave is to be installed which will effectively sterilize such clothing. In passing we would draw attention to a method of testing the efficiency of the method of dealing with fouled linen by plating the effluent from the hydro-extractor.

The nursing staff consists of 193 men and 249 women of whom 40 and 51 respectively are charge nurses. There are 16 male and 21 female nurses on duty each night. Six female nurses are employed on the male side of the



admission hospital in shifts of 3. Forty-four per cent. of the women nurses and no less than 85 per cent. of the men are certificated or registered, while a further 26 per cent. and 9 per cent. respectively have passed the preliminary examination.

Dr. R. G. Riches, particulars of whose weekly attendances as consultant at Fulham Hospital we were interested in learning, and which we are sure must be of great benefit to both hospitals, continues to be Deputy Superintendent, Dr. R. T. Retallack-Moloney is first assistant; there are two second assistants and four junior medical officers.

#### LONDON COUNTY MENTAL HOSPITALS.—8. HORTON.

*December 10th, 1937.*

We found to-day upon the statutory books of this mental hospital the names of 564 men and 1,640 women, that is to say, of 2,204 patients. Of this total 14 men (including 3 service or ex-service patients), and 190 women are private patients, the charge for whose maintenance varies between 26s. 10d. and 32s. 8d. per week in the case of those upon the private list, and is 37s. 11d. per week for those in the private ward. The corresponding charge for home patients is 26s. 10d., whilst the average weekly maintenance cost was last ascertained to be 26s. 0·51d. At the time of our visit 9 men and 7 women were absent upon long leave or trial, 32 men and 26 women were allowed parole beyond the estate, and 159 men and 147 women were enjoying a similar privilege within it.

Every patient in residence has, we believe, had the opportunity during the last two days of addressing us, if he or she so desired. A number of requests for discharge were made to us, to which we were unable to accede. We were impressed by the appreciation of their treatment which was displayed by the patients, and by the good relations which appeared to prevail between them and the staff.

A considerable amount of care and thought have been expended in this hospital in ensuring that the surroundings of the patients shall be bright and pleasant and, so far as possible, of a non-institutional character. Our colleagues have previously commented upon the use of window curtains to achieve this end in the day-rooms. Other means employed are the use of flowers and plants, brightly coloured pictures, and table centres upon tables when not in use, and the serving of tea in separate tea-pots in the better wards. Such matters, all in themselves apparently of no great importance, combine to render life more pleasant for patients who are accustomed to such amenities in their own homes. We were pleased to hear that it is hoped, in the course of time, to provide small lockers, in which to keep their private possessions, for all patients who are capable of appreciating and using them; at present this advantage is enjoyed only by a very few.

There appeared to be an amply supply of newspapers and periodicals. In some wards, however, the stock of books appeared to be in need of repair and re-binding.

The clothing, both of male and of female patients, was good in quality and appearance. We visited the needleroom, and were shown a number of the new dresses which were being made for the use of the women. The material and pattern of these were modern in type, and they would well bear comparison with those which are normally offered for sale. Smocks are being used in some cases in substitution for pinafores or aprons. In one ward we saw a new type of white drill uniform dress in use by the female nursing staff. We understand that the change is an experimental one, but we were greatly struck by the effect and the utility of these dresses. They resemble, in design, a well tailored overall, and, although no apron or stiff collar or waistband is worn with them, the traditionally smart appearance of the nurse is not lost.



A commencement has been made in the use of individual clothing for patients, and, though there are administrative difficulties to overcome, we trust that this practice will be extended throughout the hospital. There is no doubt that patients prefer to wear their own clothes rather than to be given garments from the general ward stock. We were informed that dresses are dry-cleaned (outside the hospital), or else washed, before being passed on from one patient to another.

Physical training classes for male patients continue to be held with the assistance of 7 trained instructors, all of whom are drawn from the nursing staff. During 1936 88 classes were held at which the attendances numbered 1,724, and we are quite ready to believe, as we were told, that considerable benefit had been observed in the cases of the more refractory and the stuporose types of patient. We see no reason why these advantages should be confined to the male side.

In the wards generally we, like our colleagues, observed that the limited space available for storage involved, in the ancillary rooms, the inevitable mixing of articles required for nursing and for domestic purposes. We hope, too, that in the course of time a supply of warm water will be available in every wash-bowl used by a patient. At present a hot water can has to be employed in every ward in order to fill the basins.

Every dormitory in which sick or infirm patients are nursed in bed now has a supply of hot and cold running water in a wash-bowl situated in the dormitory itself. We think that the dormitory in the male admission ("A") hospital should also not lack this important facility, which is equally appreciated by the medical and by the nursing staff.

We noticed in the infirmary wards that the commode chairs in use were of old pattern, and of a type which is now generally regarded as a possible source of infection, in the presence of any infectious disease.

We also commend to the consideration of the Committee the enlargement of the present staff lavatories with the provision of washing accommodation, and of a cloak-room for their clothes when not in use.

The mortality rate per cent. for the year ended December 31st, 1936, was 11.7 for males and 7.4 for females. Owing to the concentration here of patients suffering from neurosyphilitic conditions the death rate cannot be compared with the average rate in mental hospitals throughout the country.

Since the last visit 77 men and 103 women have died, of whom 30 males and 19 females were killed by general paralysis or tabo-paresis—that is to say, through infection of the nervous system by the causative organisms of syphilis.

Other numerically important causes of death were heart disease (14 males and 36 females), pneumonia (11 of each sex), influenza (6 males and 1 female), kidney disease (3 males and 5 females), organic brain disease (1 male and 5 females), erysipelas (1 male and 2 females), epilepsy (2 males and 1 female), tuberculosis (3 females), and carcinoma (1 male and 4 females). In 73 per cent. of the cases the cases of death were ascertained by post-mortem examination.

In the case of a patient who died from carbon monoxide poisoning an inquest was held. The man in question was found with his head in a gas-oven, having forced his way during the night through a closed hatchway leading to the ward kitchen.

Among the epidemic diseases which have occurred since the last visit, we note two cases of enteric fever (in January and August, 1937), and one case of Sonne dysentery. Much has been done here, both in the investigation of the sources from which these diseases have risen, and in the establishment of proper measures for the isolation and care of possible excretors and carriers. In 1936 an examination of the stools of 304 patients for enteric and dysentery organisms resulted in the discovery of one excretor of typhoid germs, and of ten of the bacillus Sonne. We have no doubt that from time to time further examinations of this nature will be undertaken. We would also call attention



to newly admitted patients as potential sources of infection. The difficulty of limiting epidemics of these diseases in mental hospitals makes it doubly important that special measures should be taken to trace such sources before there has been time for the infection to spread to other patients.

At the time of our visit 12 women were suffering from tuberculosis. During 1936 the incidence of new cases notified was 2·8 per 1,000 of the hospital population. Male cases are received elsewhere.

During the 12 months ending December 31st, 1936, the number per cent. of patients, male and female, suffering from general paralysis was 25·4 and 8·5 respectively, the mean rate being 12·2. The high percentage arises from the fact that such patients receive, at Horton, malaria therapy, which is given in the special department set up for this purpose in conjunction with the Ministry of Health. Much important research work is being undertaken here, and we congratulate the London County Council upon the appointment of a medical officer who will give all her time to the solution of the many problems arising in connection with the treatment of general paralysis.

We were given an opportunity to see the extensions of the treatment centre ("C") Hospital designed to provide a new breeding house for mosquitoes. The pathological laboratory is fully used, and we were interested in some special work which was being undertaken by one of the medical officers.

The X-ray department serves for this and for other hospitals in the locality. The number of successful plates registered during the year 1936 was 1,191, and the total number of cases examined was 787; of these numbers 440 and 269 respectively related to this hospital.

The casualties involving fractures of bones which have occurred since the last visit on December 2nd, 3rd and 4th, 1936, number 36, only 6 male patients being involved. The injuries arose almost exclusively among the older patients, and, with the exception of 4 cases, were wholly accidental. One female patient aged 69 sustained a fractured femur by throwing herself on the floor in a temper, one man precipitated himself upon a nurse and fell to the floor sustaining a fractured rib, one man incurred a fracture of the lower jaw and another a fracture of the bridge of the nose, both due to being struck by other patients. We note that only 2 of the 36 patients involved were under treatment in bed at the time of the accident. It is to be presumed, therefore, that the nursing of the senile and infirm reaches a high standard here.

An examination of the diet sheet reveals a healthy variety in the food provided. We observed particularly that at this winter period green vegetables appeared three or four times weekly on the menu. The issue of milk for ordinary diets amounts, approximately, to 11/16 pints per patient per day. In addition 403 pints are issued daily as sick and extra diets. The average caloric value of the ordinary diet issued is stated to be 3,016 calories per patient per day.

The only further comment we desire to make in relation to the subject of food is upon the lack, in all the wards, of adequate heating facilities for plates, which must inevitably detract from the advantages offered by a good and well-cooked meal.

The nursing staff, including sub-officers, numbers 384, or 92 men and 292 women, of whom 11 men and 44 women are employed upon night duty. Sixty men and 156 women are certificated or registered as mental nurses.

The hours of duty are 96 per fortnight. The ordinary weekly tour of day duty is :—

7 p.m.—1.50 p.m. and 1 p.m.—9.10 p.m. on alternate weeks—on five days;  
7 a.m.—6.30 p.m.—one day (1 hour for meals);  
Off duty—one day.

Night duty is from 9 p.m.—7.10 a.m. upon five days per week with 35 minutes for meals; the other two days are off-duty periods.



Dr. Nicol has to assist him as Deputy Medical Superintendent Dr. R. G. Anderson. Dr. S. W. Hardwick is 1st Assistant Medical Officer, and Drs. J. Laws and Harold Hinchco, Dr. Effie L. Hutton, 2nd Assistant Medical Officers. Dr. Maeve Whelen, Dr. A. J. Galbraith and Dr. Betty Zeal are Assistant Medical Officers.

LONDON COUNTY MENTAL HOSPITALS.—9. LONG GROVE.

*October 21st, 1937.*

During the past three days we have paid a most interesting visit to this well-equipped hospital, seeing, in that time, as much as was possible of its many activities.

The patients here enjoy the benefit of skilled medical treatment and careful nursing. Increasing attention has been paid in recent years to the recreational life of the hospital. We are very glad that this is so, for it is becoming ever more widely recognized what an important factor in the treatment of mental disorders recreation in its widest sense can be. We welcome therefore the installation of a talking film apparatus during the summer and also the provision in the villas of wireless sets. No doubt the success of these will lead to others being acquired for the wards of the main hospital. It is satisfactory to find that outdoor games are being encouraged on both sides of the hospital. The male patients' football teams are well established and there are now two hockey elevens among the women patients and the patients, we are glad to hear, are becoming keenly interested. Physical culture is also being developed gradually. Several classes exist on the male side, one or two having daily sessions. On the female side a class of 30 has drill on 1 day each week and this morning we were fortunate enough to be present at it. The group of patients was carefully selected and the exercises they were doing were of a type which have been found to be of great utility at other hospitals. We feel that among certain types of patient physical exercises can be of decided therapeutic value and we hope that it will be found possible greatly to extend and develop the present classes and to start others.

Closely allied to physical training and to recreation is the question of occupation therapy. We have tried to see all that is being done at Long Grove with regard to this important form of treatment and further reference to it will be made at a later stage in this report.

In our tour of the wards and workshops we believe we have seen all the patients in residence and we have spoken to all who seemed to wish to converse with us and we gave 6 interviews. The patients were remarkably well behaved and, on the whole, very quiet in demeanour. We received the usual large number of requests for discharge all from patients whose mental condition rendered them unsuited at the present time for their liberty.

It struck us that much attention is paid to keeping the patients neat and tidy in appearance. Upon enquiry we found that all male patients are shaved at least three times a week and that in a number of wards shaving is done daily. We were also glad to hear that it is proposed to instal in the tailors' shop a steam trouser press. This press should be most valuable in smartening the men's clothing. On the women's side many of the dresses are made to measure and there are a number of pleasing materials from which a woman patient can choose her dress. The female underclothing has been modernized in recent years and lately a new corset belt with suspenders attached has been introduced of an admirable pattern. It is satisfactory to know that individual marking of under garments is now the rule in all good wards. On the male side a start has been made with the issue of a new kind of underpants of a thin material. In some of the villas the modern method of storing dresses and outdoor garments has been adopted since the visit of our colleagues last year. A long rod with coat hangers attached has



been placed in the coat room. This has been boarded in at the top and curtains hang in front to protect the garments from dust. We hope that this system will shortly spread throughout the hospital.

The wards generally were in good order and in a good state of repair. They were well decorated on the female side with plants and flowers, but on the male side flowers were lacking. We were glad to hear that a start is shortly to be made to replace the old-fashioned pictures with artistic railway posters and in the wards recently redecorated the old pictures have not been rehung. The ward gardens are a particularly pleasing feature of this hospital. They have been laid out with care and skill and they looked very attractive during our visit filled as they were with a good display of autumn flowers. A number of patients of both sexes are encouraged to take an interest in gardening by being given small allotments of their own.

In N.1 ward and the corresponding ward on the female side the padded rooms mentioned in the last report are to disappear. They will be replaced in another part of the ward in each case and the resulting alterations will form a useful improvement. We were glad to hear that in the male acute ward M. 1 a clinical room is to be contrived as at present this is the only ward without one. Experiments have recently been made in laying on hot water in one or two of the ward washrooms notably in that of S. 1 the large male workers' ward. The provision of hot water for ablutions is much appreciated, we hear, and no doubt in course of time all ward washrooms will be provided with it. Meantime we think it could easily be arranged that each ward washroom had a large size enamel jug so that hot water could be provided from the nearest hot water tap and patients could then wash in warm water in the mornings.

We visited the library and also examined the ward book shelves. We gathered that the library consists of some 1,600 volumes and that most of the ward book shelves are stocked each month with from 16 to 20 books. In one or two large wards 36 books are supplied every 3 weeks. As occasion arises the chaplain carries round some weekly illustrated papers to certain wards or to certain patients. There are no bound volumes of periodicals such as "Punch" or "The Sphere" in any of the wards.

We feel that this provision for the literary needs of the patients is somewhat inadequate, particularly in view of the antiquated nature of many of the books, and it falls considerably below that of many modern hospitals. In one county mental hospital with which we are familiar the library contains some 1,900 volumes—all really modern or standard works—for its 450 patients.

There were in residence to-day 2,227 patients, 1,181 men and 1,046 women. Eighty-one patients—71 men and 10 women—were voluntary patients, the remainder were all certified patients. During 1936 there were 222 direct admissions and of these 40 were voluntary and 7 were temporary patients. The direct admissions up to the present date for 1937 have been 251, 40 being voluntary and 3 being temporary. One explanation of the small number of patients received here under the provisions of the Mental Treatment Act, 1930, may be that at the present time no medical officer of this hospital conducts an out-patient clinic or visits any of the observation wards administered by the London County Council.

There are at present 6 men and 8 women out on long leave or on trial and the number of patients on the statutory books is therefore 2,241.

One hundred and sixty men and 40 women rank as private patients, 133 of the former being in the service or ex-service group. The weekly maintenance charge for rate-aided patients is 26s. 10d. and for private patients from 26s. 10d. to 32s. 8d. The average weekly maintenance cost is 25s. 10d.

Upon the figures submitted to us there is a shortage of accommodation by night for 13 male and 19 female patients.

Four male and 2 female villas are administered upon the open-door principle, the former to the grounds and the latter to the ward gardens. Seventy-seven men enjoy parole beyond the estate and 260 men have parole within the grounds, but no female patient enjoys either privilege.



The nursing staff consists of 38 nurses of charge rank on each side of the hospital and 159 men and 146 women ordinary nurses. Of these 17 men and 19 women are employed as night nurses.

One hundred and seventy-seven men and 63 women are certificated or registered as mental nurses and 7 men and 50 women have passed the preliminary examination.

The percentage of patients under treatment in bed at the time of our visit was 9·3 on the women's side and as low as 5·6 on the men's. These figures together with some others, however, probably require to be considered in association with the numbers of the direct admissions, which, though rising, are still rather low for a hospital with over 2,200 beds.

From our enquiries we feel that the standard of medical and nursing care is high and the medical officers have an intimate knowledge of their patients and their ailments. The basis of treatment is both wide and thorough.

There has been little sickness of an epidemic character. Two men of wards K.1 and J.1 were attacked by dysentery in January and August and a woman in B.1 in July. A case of enteric fever arose in ward C.1 last month and this woman is at present under treatment in carefully conducted isolation in the same detached building where the remaining case of dysentery is convalescent and where tuberculous women and 2 "typhoid carriers" are accommodated. A complete bacteriological examination of the excreta of contacts in the wards affected has not discovered a source of either of these two intestinal infections.

A larger receptacle for sterilizing bed pans is needed in the isolation hospital and similar provision is desirable wherever such conveniences are in use. A frame for storing them is about to be fixed in one of the sick wards. Nine cases of influenzal pneumonia occurred in January among the women.

Twenty-four men and 11 women are under treatment under sheltered open-air conditions for tuberculosis, of whom 14 and 6 respectively are regarded as inactive or closed cases. It is of interest to note that 12 of these 35 patients suffered from this disease on their admission to hospital. A nominal roll has been prepared showing the various wards occupied by the tuberculous patients during their stay here. We are sorry to learn that the available X-ray apparatus is inadequate for the diagnosis of tuberculosis in the chest.

A new operating theatre as well as a massage room are in course of erection. The last annual number of general, ophthalmic and gynaecological operations conducted by the visiting staff was 33, in addition to those conducted by the resident staff. There were over a thousand attendances in the dental department and over 2,200 treatments by massage.

Among the methods of treatment adopted in the hospital, occupation plays an important part; in the special workshop and in the women's occupation room a variety of handicrafts is taught and classes also are conducted, on occasions during the week, in certain wards. The space available and the personnel trained to help patients on these lines are both, however, insufficient for the requirements and the present shortage of female staff is a special handicap. While the total number of occupied patients is a promising proportion, it is clear that the patients of several wards could, with great benefit, receive simple handcraft instruction of a more continuous character than the present facilities afford and not necessarily within doors.

Since the last visit 14 months ago, fractures have occurred in the cases of 17 men and 21 women; their ages ranged between 31 and 87, 23 being under 60 years. The long bones were involved in 8 men and 16 women, 1 man and 9 women sustaining fractures near the wrist. Four fractures resulted from the action of other patients, 2 from the action of the patient himself, 3 were due to fits, 1 to restlessness and 1 to an unknown cause. The other fractures were due to accidental falls. In spite of this number of injuries only 1 patient died during the illness following the injury. His death, 2 months later, was the subject of an inquest; he had fallen down while getting out of his chair; there was marked degeneration of his heart muscle.



The death rate for the hospital during 1936 was 45 per thousand resident, or 57 on the men's side and 31 on the women's. The average death rate for public mental hospitals in the country was 68. In the 14 months under review there have been 135 deaths and, in over 79 per cent. of these, post-mortem examinations have been carried out. In no case was there a bed sore.

The causes of death have been, in the main, diseases of the cardiovascular system (48), pneumonia (19), tuberculosis (17), and malignant and other tumours (12).

Perforation of the bowels in the course of ulceration resulted in 3 deaths and acute intestinal obstruction in 2 deaths.

We have seen dinners and teas served in the wards on 2 days; they were apparently well enjoyed. Brown bread is issued at tea on 3 days of the week. A good variety of foodstuffs is available for special and for sick diets. We understand that an endeavour will be made to secure further variations in flavour of the minced meat.

A new refrigerator is being installed in the general kitchen, where fish fryers and steamers have been replaced.

Visiting the farm buildings of the hospital we saw the additional byre accommodation of a modern type and the new sterilizing plant for the milking utensils.

A sterilizing room has been added to the pathological laboratory.

It might be well to apply some tests of the efficacy of the steam disinfecter near the laundry with regard to the tightness of the packing of the contents.

Dr. Barnes is assisted by Dr. J. R. A. Madgwick, the deputy medical superintendent, and by Drs. W. H. H. Steadman, J. K. Marshall, J. H. Watkins, Marjorie E. F. Sanders, Joyce McConnell and a locum tenens.

We wish to express our appreciation of the promptness with which the staff have supplied us with statistical and other particulars and of their ready help throughout our visit.

#### LONDON COUNTY MENTAL HOSPITALS.—10. WEST PARK.

*August 31st, 1937.*

Our statutory visit to West Park Hospital has occupied the past 2 days. In the course of it we have seen much to interest us, not only in the administration of the hospital but also in the methods here employed in the treatment of mental illness.

There are, to-day, upon the statutory books the names of 1,188 men and 1,006 women or, in all, of 2,194 patients. Ten men and 16 women are away upon long leave or trial. It is worthy of remark that of the 2,168 patients in residence 185 are returned to us as usually enjoying parole outside the grounds, and 532 within them. Thirteen wards are open to the grounds and 6 more to the ward gardens.

Of 359 direct admissions during 1936, 77 were upon a voluntary and 10 upon a temporary basis. There are at present in residence 1 temporary and 143 voluntary patients.

Private patients, including 45 of the service or ex-service category, number 103. The weekly maintenance charge for such patients varies from 26s. 10d. to 32.8d. whilst that for home patients is 26s. 10d. The average weekly maintenance cost was last ascertained to be 27s. 10.6d.

We found that the provision for the diet and accommodation of patients was uniformly efficient. The food was varied and substantial, and the day-rooms and dormitories were well kept and suitably furnished. The use of separate chairs and tables, where possible, and the display of plants and flowers did a great deal to dispel the institutional atmosphere of the large day-rooms. Nearly every patient who is capable of availing himself or herself of the privilege has a private locker to which he or she possesses a key. We are glad to be informed that the installation of a supply of hot water to every wash-basin in the sanitary annexes is in progress.



In several wards we found that the disposal of soiled linen was now being effected by passing it in bags, as containers, through a hatch in the wall of the dormitory to a covered bin outside which was constructed of concrete. While this arrangement represents a great advance upon other methods we doubt whether a hatch-door and frame-work made of soft wood will prove to be satisfactory. We have seen, elsewhere, similar hatches constructed of untarnishable metal.

In no less than 11 villas cooking is done by the patients and staff without recourse to the central kitchen. The comparative merits of the two systems are frequently matters of argument, but we observed that, apart from any question of cost, opinion at the hospital generally favoured separate cooking centres, notwithstanding the inevitable variations in the standard of cooking.

We were unfavourably impressed by the appearance in shape and fit of the clothing of the male patients. The tweed lounge suits which are worn upon all ordinary occasions are, in the majority of cases, carried upon the stock of a particular ward and are not marked to an individual patient. It follows that when a male patient has for any reason to be transferred to another part of the hospital he has to be re-equipped in his new ward with a suit which may be new or may have been previously worn by another patient.

We were satisfied that no patient was required to use such a suit unless it had first been washed, but this process in itself, as we observed in several cases, results too often in shrinkage and unshapeliness. About 90 suits per week pass through the laundry to the tailor's shop for pressing. We suggest for the committee's consideration, the adoption of some other means of cleaning such garments. It is possible that a method of dry-cleaning would prove more suitable and, upon the whole, more economical.

Occupation for therapeutic purposes is, on the male side, organized by the male occupation officer, and we saw evidences of his work in most wards. In some instances the officer himself took the class, in others it was in charge of the nursing staff under his general supervision. The results which, of course, depend largely upon the interest of the staff, are encouraging and the number of male patients engaged is steadily increasing.

The female occupation officer was unfortunately absent upon leave at the time of our visit. We hope that here, again, the interest and the skill of the nursing staff will in time enable a still larger number of patients to undergo occupational treatment.

A central class for physical training is conducted by an instructor upon the male side, and classes for this purpose are also held by members of the staff in the male reception hospital and in male wards H.1 and J. Upon the female side a class at which the attendance averaged in 1936 14 patients is taken weekly by the masseuse in the female reception hospital.

In expressing the hope that in the future there will be a considerable increase of this activity upon both sides of the hospital we do not lose sight of the progress that has already been made, of the games for patients which are here so well organized, and of the weekly classes in folk dancing for both sexes which some 20 patients attend and enjoy under the direction of the folk dancing instructress.

Since the last Commissioners' visit there have been completed, amongst other improvements, extensions to the farm dairy and sterilizing plant, and a refrigerator has been installed in the kitchen. Sound-film apparatus has been purchased and the cinema operating room in the main hall has been adapted to its use; considerable alterations have also been made to the lighting of the hall. In the laundry a washing machine has been replaced. An addition to the nurses' home is in the course of erection, and alterations to the ground floor of the present nurses' quarters are contemplated.

In the course of a visit to the dispensary, as well as in the wards, we discussed in some detail the arrangements for the dispensing, storage, and administration of drugs used for patients.



The treatment of schizophrenia by means of cardiazol injections has recently been commenced at this hospital. We had the advantage of seeing a patient during a stage of this treatment. While, of course, it is impossible at present to say whether the results are comparable with those suggested for insulin treatment, it seems that there is in this method some simplification of technique with a relatively low risk. We were informed that the reports from continental centres where cardiazol is used indicate that remission in recent cases occurs with encouraging frequency.

With regard to surgical work, the number of operations performed in 1936 was 33, but so far during the present year there have been five minor operations only.

Since the last visit of our colleagues 166 patients and 88 members of the nursing staff have suffered from influenza, mostly during January of this year. There were 9 cases of erysipelas and 2 cases of enteric fever on the female side. The first case of enteric arose in December last and the second occurred a month later in another ward. A thorough investigation of all contacts did not reveal the presence of any typhoid carriers. Happily there have been no further recent cases of enteritis or dysentery, although during April, 1936, 1 case of Flexner X infection occurred on the female side. Immediate steps were taken for the isolation of the patient. New cases of tuberculosis notified were at the rate of 8·8 per thousand against a mean rate of 6·8 for all mental hospitals. The death rate from this disease is given as 5·1 against a mean rate of 4·5 per thousand.

The mortality percentage rate from all causes for the year ending December 31st, 1936 was 4. Of the 71 deaths occurring since the last visit post mortem examinations were carried out on 46 occasions. The most important causes of death were:—tuberculosis, 14; heart disease, 18; pneumonia, 8; kidney disease, 7; brain disease (organic), 5; general paralysis, 5.

Fractures occurred in the cases of 9 patients, and in one case there was a dislocation: all were the result of unavoidable accidents. It is complimentary to the nursing staff to be able to record that in no case was the patient at the time undergoing treatment in bed.

The nursing staff, as returned to us, comprises 201 male and 196 female nurses, totalling 397. Of these 309 (179 men and 130 women) are certificated or registered as mental nurses. An additional 33 (7 men and 26 women) have passed the preliminary examination.

All patients who are suitable have the opportunity of attending Divine Service.

We should not like to conclude this entry without expressing our sense of the high standard which is attained in this hospital, both in the treatment and in the care of patients. Such comments as we have made refer to matters which are relatively small and are designed only to assist the staff in the very valuable work which they have done, and are doing, in the cause of mental health.

Dr. Roberts who, unfortunately, was absent upon leave at the time of our visit, has to assist him Dr. J. S. Harris as deputy medical superintendent and Drs. C. R. Birnie, Alexander Kennedy, S. L. Switzer, W. P. Berrington and A. J. Galbraith, as assistant medical officers.

#### MIDDLESEX MENTAL HOSPITALS.—1. SPRINGFIELD.

October 8th, 1937.

During our visit, which has occupied the last 2 days, we have found that this hospital continues to be soundly administered, and that progress is being made in several directions. A number of alterations and additions have been effected and considerable improvements are in the course of being carried out and more have been arranged to be done in the near future.



The advantages to be gained from Section 1 of the Mental Treatment Act, 1930, are evidently appreciated in the area served by this hospital. According to the statistics placed before us there were during the year 1936 454 direct admissions (186 M. and 268 F.), of whom 1·7 per cent. were temporary and 38 per cent. voluntary patients. During this period the departures and discharges numbered 152 and 179. Of these 65 and 131 respectively had recovered.

Since January of this year the direct admissions have so far numbered 351 (127 M., 224 F.), of whom 1·7 per cent. were received on a temporary and 44 per cent. on a voluntary basis. Of these 351 direct admissions 224 patients were admitted from the public assistance institutions and 127 direct from their own homes. Ten per cent. of the former and 97 per cent. of the latter consisted of voluntary patients.

There appear on the statutory books the names of 1,933 patients (737 M., 1,196 F.). The private patients number 163 of whom 69 belong to the service or ex-service class. All the patients were in residence with the exception of 14, who were away on leave or trial. The patients, as far as their mental condition might allow, were happy and contented. A quiet atmosphere prevailed throughout the hospital. There were very few enquiries on the matter of discharge and no private interviews were requested.

The patients of both sexes are well and suitably clothed; care having been taken to see that their suits and dresses fitted properly. The patients' amusements and recreations are well catered for and consist of weekly dances and "talkie" cinema performances in addition to various indoor and outdoor games. Each ward has wireless, a good and frequently changed supply of books and daily newspapers. We would like to see, however, the issue of Sunday newspapers and in some wards additional daily newspapers.

Several parties were taken for a fortnight's holiday at the seaside this summer; in all 25 patients of each sex were able to enjoy this new and greatly appreciated holiday. We understand from Dr. Worth that these holidays are to be repeated next year and we hope that it will be found possible to extend these refreshing visits to more patients than was previously found possible.

Twenty-nine patients (12 M., 17 F.) enjoy parole beyond the hospital estate, and 308 (108 M., 200 F.) enjoy parole within the grounds. In addition the 256 female patients housed at New Malden Annexe have parole within their grounds, 25 of whom have outside parole as well. Each New Malden pavilion is administered on the open door principle, and at Springfield 2 male wards are open to the hospital grounds, and 15, 4 male and 11 female wards, are open to their respective gardens.

The wards throughout the hospital are comfortably furnished, well decorated, generally bright and particularly well kept. Reconstruction of ventilators is in progress in the single rooms and it was pleasing to see that wherever possible each single room was supplied with at least a rug and chair. Many flowers and pot plants were to be found tastefully arranged in all the day-rooms and in the dormitories where the sick are nursed.

The sanitary annexes of 8 of the male wards have been fitted with urinals and new hot and cold washing basins have been and are being installed in many of the ablution rooms. We understand that the remaining dormitories in which sick and senile patients are nursed and which are not already equipped with hot and cold washing basins are, in the near future, to be provided with such conveniences.

Extensive redecoration of the wards at the hospital has been carried out and the exterior of the various buildings at New Malden have likewise been treated and their internal redecoration is now in progress.

Last June the hospital was unfortunate in having two of its wards partially damaged by fire. A fire which, if it had not been brought under control so quickly, might easily have spread and led to far greater damage being done. The quiet and calm handling of the patients during this



outbreak must be a matter for congratulation to all those concerned. Both these wards are now repaired and their decoration nearly completed.

The total accommodation space of the hospital has recently been recalculated and hence cannot be compared with the figures for day and night space recorded in the previous entry. The situation as placed before us to-day is that there is a deficiency of accommodation by day for 8 women, but a surplus of accommodation by night for 23 men and 74 women. This is not apparent by day on the male side of the main building, where the day-rooms seemed rather overcrowded, also the sick wards to which reference is made at a later stage in this entry.

The arrangements made for the examination of new patients are particularly good. Within the first week after admission each patient undergoes a full physical overhaul by his medical officer and by the several visiting consultants in their respective branches of surgery. Following this series of physical examinations, an exploration of the mental symptoms is undertaken and treatment accordingly instituted; the means therefore are augmented and facilitated by the modern equipment in the X-ray department and by the resources of the pathological laboratory which is at hand. Particulars are obtained by the social worker of the factors contributory to the patient's illness. From what we have seen and heard it is clear that a thorough investigation is made of the illness of mental patients admitted to this hospital.

Among the therapeutic activities the utility of occupation and of physical training is here recognized but the space at present available for the usual range of handicrafts is so limited and inconvenient, especially on the male side, that the benefits are seriously curtailed. The cramped accommodation not only restricts the number of patients, whose treatment might be advanced, but also the number of nurses who might learn the various handicrafts by attendance at the occupation rooms. The recently formed physical training class for men gave us a promising demonstration this morning; we hope it may be found possible to supply the patients with gym clothes and shoes to enable them to take part more easily in their exercises.

The building devoted to the care and treatment of the sick provides excellent accommodation for the women and for some of the men, but the men's sick wards in the main building are much less favourably situated, having, generally, windows on one side only and floor space equivalent to that for ordinary sleeping quarters without day space.

There were 104 men and 96 women in bed at the time of our visit, being a percentage of 14 for the men and 8 for the women. A certain proportion were in bed for mental rather than physical reasons.

In a building in the garden of ward 15, 3 women are housed separately from other patients on account of the risk of their communicating typhoid infection. One of them was in bed and the other 2 were up and about; their clothing is treated with disinfectants before being sent to the steam disinfecter. We trust that the inadequacy is recognized of these preliminary measures, as now performed to remove infection. Another form of typhoid patient has recently undergone a cholecystectomy, and it is hoped that she will thus cease to carry the infection. She is at present segregated in one of the sick wards. Two other cases having previously undergone the same operation are now considered fit and suitable to mix amongst the other patients. These two patients have been subjected to severe bacteriological tests and been found to be free from infection.

The bins for foul linen are large and heavy and we understand that as some of them do not leave the ward they depend on liquid for their cleaning, a less effective method than the use of live steam. Smaller bins of a different pattern are being made and some are already in use.

The hospital is well provided with well-equipped clinical rooms.

Since the last visit, some 14 months ago, there has been no outbreak of infectious disease except one of influenza, which at the beginning of this



year attacked 41 patients and 22 members of the staff and resulted in the death of 2 of the former. Eight men and three women are under treatment for tuberculosis, all but 1 are nursed in open air conditions; one gathered that 1 man in ward 6 will very shortly be removed to another ward. It is important to observe that 2 of the 3 women and 1 of the men showed signs of this disease within a few days of their admissions. Among the other men affected, the disease was observed from 11 months to 3 years after admission. It might prove helpful to trace the ward distribution of these patients and that of the 5 men and 8 women who have died from tuberculosis.

Three men and 12 women have sustained fractures. The cause of 1 Colles fracture is not known. All the other injuries resulted from the patient slipping. The ages of the 15 patients ranged from 34 to 75 years of age. The deaths of 7 patients in this hospital and of 2 while on leave have been the subject of inquest, the particulars of which have been furnished to our Board. Accidental fractures had preceded the last illness in 5 instances. The death rate for the year 1936 was 69 per thousand, which was approximately the average for public mental hospitals of England and Wales. During the 14 months under review 139 patients have died and in 79 cases post-mortem examinations have been made; 27 deaths were due to cardiac disease, 24 to pneumonia and other non-tuberculous lung complaints.

The detail of meals is arranged afresh each month; those we saw served appeared to be well appreciated by the patients. Good provision is made for the special diets for the sick and a daily delivery of fish is secured. Various prepared meats, sausages, dried fish or eggs are served for breakfast, and jam, marmalade, syrup or cake for tea, as well as salads and fresh fruit when these are available.

The nursing staff numbers 130 men and 171 women, nearly 77 per cent. of the former and over 61 per cent. of the latter, a very high proportion, are certificated or registered as mental nurses. Eleven and 33 respectively have passed the preliminary examination.

We could not fail to observe the good relations existing between patients and staff and, in particular, the warm friendliness with which patients greeted the Medical Superintendent.

Dr. Worth has the assistance in this hospital of Dr. G. W. Smith, the Deputy Medical Superintendent, and of Drs. H. C. Beccle, C. K. G. Dick, M. L. Meade-King, J. T. W. Spiridion-Klisczewski, and E. Stephens-Davies, to all of whom we are indebted for their ready information regarding patients during our visit. Dr. D. H. Lukis visits the patients at New Malden.

#### MIDDLESEX MENTAL HOSPITALS.—2. NAPSURY.

*February 24th 1937.*

To-day we have completed our visit, started 2 days ago, to this hospital and believe we have seen all the 1,901 patients in residence with the exception of 2 patients who were away either on long leave or trial. We found an atmosphere of quiet and contentment prevailing throughout the hospital, and the relationship between patients and staff to be good.

Very few complaints were made and those for the most part were based on requests for discharge. Two private interviews were given.

During the year 1936 according to the statements placed before us there were :—

	Voluntary.				Temporary.				Certified.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.
Direct admissions ... ..	30	50	—	10	81	154	111	214	325				
Departed or discharged (excluding transfers) ... ..	25	41	—	4	32	90	57	135	192				
Of whom had recovered ... ..	—	4	—	—	22	63	22	67	89				
Allowed out on long leave or trial ... ..	1	1	—	—	62	82	63	83	146				
Number to whom granted money allowances ... ..	1	1	—	—	62	82	63	83	146				



From the above figures it is gratifying to observe that Section 1 of the Mental Treatment Act, 1930, continues to be appreciated in so much as practically 25 per cent. of the direct admissions were on a voluntary basis. In previous reports stress has been laid upon the desirability of bearing in mind the cardinal points of the Mental Treatment Act, 1930, and the apparent lack of appreciation of Section 5 of that Act.

During 1936 over 90 per cent. of the direct admissions, we are told, were received from the North Middlesex Hospital. Of these not one man was admitted on a temporary basis, while the 10 women who were admitted as temporary patients happened to be puerperal cases.

An out-patient clinic is held weekly by Dr. Roachsmith, the deputy medical superintendent. During the previous year there were 197 new cases for treatment, totalling 520 attendances.

The appointment of a social worker in conjunction with Shenley Mental Hospital was made in January of this year and her services have proved of great value at the out-patient clinic; we are sure her services will be of value also in other work such as investigating the homes of patients who are to be sent on leave or trial.

There are on the statutory books the names of 1,903 patients, consisting of 822 men and 1,081 women. Of these patients 26 men and 32 women are voluntary, 796 and 1,045 respectively are under certificate and 4 women are temporary patients.

Included among those on the books are 74 private patients of whom 56 are service or ex-service.

The weekly maintenance charge per head for home patients is 26s. 3d. and for private patients 38s. 6d. The average weekly maintenance cost per head as last ascertained is 23s. 6d.

The present staff of nurses consists of :—

							Male.	Female.	Total.
Charge	...	...	...	...	...	...	28	42	70
Ordinary	...	...	...	...	...	...	106	107	213
Night	...	...	...	...	...	...	24	27	51

Of the above, 121 male and 38 female nurses are certificated or registered as mental nurses while 20 male and 50 female nurses have passed their preliminary examination.

The wards of the hospital are well kept and have a plentiful supply of flowers and plants, and generally present a bright and comfortable appearance. In the admission wards, however, especially in M.A. and M.B., brighter table covers would be a pleasing addition, and when the furniture is due to be replaced, articles of a more modern and brighter appearance would give a more homely effect. The provision of some more armchairs, particularly in ward F.15 would add to the comfort of the patients.

In some wards such as F.A. and F.2, the single rooms are given to patients by way of privilege; furnishing these rooms with a few articles such as a dressing table and armchair would make them more cheerful.

Hot-plates have been provided in many wards and in due course are to be installed throughout the hospital.

The ward gardens are in excellent order and have many artistic and well planted flower beds.

Provision for occupational treatment has been delayed, as ward F.15, which was contemplated as a large occupational centre, is still occupied by patients. Dr. O'Neill informed us that unfortunately, owing to the unavoidable delay in the removal of some patients to Shenley Mental Hospital, he has been unable to effect his purpose.

In the occupation centre on the women's side a class of some 38 patients is held every morning under the expert supervision of the occupational officer. Here we saw some remarkably fine products comprising embroidery, rugs, baskets, and other handicrafts. The occupational officer in the afternoons



visits the women's admission wards and also some of the other wards of the hospital.

In the men's occupation centre some first class work was also seen. Here a class of 19 patients is taken twice a day. There is no provision for occupational treatment in the 2 male admission wards as there is in the case on the women's side. It would be a great benefit if this form of treatment could be similarly introduced into the men's admission wards.

Classes of physical exercises with knockabout football are held twice daily and have stimulated interest in some men who hitherto have been lacking in any form of initiative. We hope these classes will be more general and that physical exercises will be extended to those women patients who could likewise benefit.

The patients' clothing, particularly on the women's side, has been much improved by the issue of modern underclothing and lighter stockings. The suits of the men were of a very fair appearance and it was pleasing to see that shirts with detachable collars are now provided.

We were also interested to learn that coat hangers are to be adopted in all wards: but it was with regret that we learnt that the provision of a steam clothes press has been postponed. A press of this nature would undoubtedly facilitate the maintenance of the tidy appearance of suits, overcoats, etc. At present both the ward linen and patients' clothes are marked by means of a stamp: but we understand that in the near future a sewing marking machine is to be employed.

The patients' indoor amusements consist of wireless, "talkie" cinema programmes, dances and whist drives; whilst among outdoor recreations inter sectional football matches have proved very popular.

In many wards, especially in those of the higher grade patients, the supply of newspapers is small and a more plentiful supply would be appreciated by the patients.

Since the last visit a 3 weekly and well varying dietary has been adopted. Yesterday we saw the patients enjoy a good dinner which consisted of meat pie, greens, carrots and potatoes followed by sago pudding and stewed plums.

A canteen for the patients is to be built and we were shown the site which should enable easy access to be gained by patients from all parts of the hospital.

One hundred and twenty-five men and 70 women enjoy parole within the hospital grounds and 21 men and 32 women parole beyond the estate.

We visited the farm and were well satisfied with the general hygiene and the arrangements which have been made to provide the hospital with a clean milk supply.

The general health of staff and patients has been very satisfactory. The epidemic of influenza which recently spread over the country has invaded this hospital with the result that 192 patients and 55 members of the staff have been affected. No deaths have been recorded as due to the disease but as 39 patients have died from pneumonia it is reasonable to assume that the exciting cause in some of these cases was influenza.

The mortality rate for the year 1936 was the low one of 5 per cent. Since the visit paid by our colleagues 13 months ago 109 patients have died—40 men and 69 women. Post-mortem examinations were held in all but 3 instances: truly a remarkable record. Apart from pneumonia the principal causes of death have been heart disease 14, organic brain disease 9, and tuberculosis 9.

Inquests were held in the cases of a male patient who died from cellulitis following an accidental fall, and a woman patient who died from natural causes.

We were very favourably impressed with the small number of patients in bed for mental reasons and by the fact that we did not find one patient lying on a mattress on the floor of a single room. The seclusion of a patient is unknown in this hospital. The golden rule of treatment is to bring noisy and troublesome patients out into the open air and, as we saw yesterday, the results are entirely satisfactory.



On visiting the dispensary we found, as we expected, that the issue of sedative medicines had been reduced to a minimum.

The total numbers of patients in bed, including the sick and those there for mental reasons, were 51 men and 50 women. With few exceptions they were being nursed in the verandahs by day and returned to the wards at night. The majority of these were of the senile and infirm type.

The arrangements made for the nursing of the sick, including dietary, bedding, ventilation and heating of wards were very satisfactory. We noticed that a few more bed tables were required in F.11 ward.

Open fires in addition to radiators add much to the comfort of the wards and assist in promoting ventilation which is particularly good in this hospital.

We were escorted during our visit to this hospital by Dr. O'Neill to whom we are grateful for his help and courtesy.

### MIDDLESEX MENTAL HOSPITALS.—3. SHENLEY.

*November 5th, 1937.*

We have spent the last two days visiting this hospital, that is, those parts which are now complete and in occupation. During the course of our visit we found that progress has been made in all directions and that the hospital is well administered, every opportunity having been taken to ensure that the patients are in receipt of modern hospital treatment, comfort and kindly care.

The rooms throughout the various units of the hospital are attractively decorated, comfortably furnished and very well kept. Each day room is well supplied with flowers, books and newspapers, and is equipped with wireless and indoor games. There is already provision for outdoor recreations and when the hospital is completed still more facilities will be available. Patients who are nursed in bed are supplied with books and articles from the canteen on trolleys; this has proved most successful and popular. A larger reserve of books, however, in the central library would permit of a more varied display in the day rooms.

Portable fire extinguishers are to be found only in certain departments of the hospital, the nursing staff being instructed in case of fire to concentrate on the removal of patients to safety. In view of this we would like to recommend that such extinguishers should be installed throughout the hospital more extensively so that they should be available in the event of either patients clothing or dayroom furniture catching alight.

It was pleasing to see that attention had been given to the various ward gardens and that already the turf was well established and the shrubs well grown.

There were 470 direct admissions during the year 1936 of whom approximately 40 per cent. were received on a voluntary and 3·6 per cent. on a temporary basis. Since the beginning of this year (10 months) the direct admissions have numbered 411 and of these 42 per cent. were voluntary and 3·1 per cent. were temporary patients. Dr. Shore or an assistant medical officer holds an out-patient clinic weekly at the Central Middlesex Hospital, and in addition visits the mental wards in a consultant capacity, for the purpose of advising that those patients who may be in need of mental treatment, should, as soon as possible, be given the advantages of the facilities possessed by this hospital. Appreciation by the area which is served by this hospital of the use of the Mental Treatment Act, 1930, is evidenced by the satisfactory percentages of admissions under Section 1 of this Act. Although figures were not available we were pleased to hear from Dr. Shore that a good proportion of the above percentages for voluntary patients was received from the public assistance institution.

The hospital has the services of a part-time social worker which have proved most valuable, both in investigating and advising in the homes of



patients prior to trial or discharge, and in assisting at the weekly out-patient clinic. The social worker, in addition, has been instrumental in finding employment for patients on discharge, and has kept in touch with previous employers with the object of seeing that situations are, if possible, kept open till the patient's discharge. In the entry for 1935 it was mentioned that enquiry forms are dispatched requesting information on the progress of discharged patients, and we are sure that this system, over a period of years, should furnish most valuable data. We would like, however to recommend the appointment of a whole-time social worker, bearing in mind the increased and increasing size of the hospital, and the fact that the services rendered are of such undoubted value. .

There appear on the statutory books the names of 1,173 patients (395 men, 778 women) of whom 130 are on a voluntary and six on a temporary basis. The private patients number 11 and include three belonging to the service or ex-service class. All were in residence with the exception of eight who were away on leave or trial. Great care is given to the proper classification of patients in the several units and their wards, but difficulty, we understand, has arisen in this direction owing to the large number of patients of the chronic type having been received on transfer during the last three years. According to the figures placed before us there is a surplus of accommodation for 15 men both by day and by night, but a deficiency of both day and night accommodation for 33 women.

The weekly maintenance charge per head for home patients is 26s. 3d., and that for private patients £2 19s. 6d. The average weekly maintenance cost as last ascertained is £1 11s. 7·7d.

Forty-two men and 32 women enjoy parole beyond the hospital grounds, and in view of the fact that building operations are still in progress it is of interest to note that 23 men and 60 women enjoy parole within the grounds.

Since the last visit some 13 months ago two buildings, each containing two wards accommodating 39 patients, have been completed, and it is hoped that during next year, month by month, buildings will be ready for occupation and use and so the whole hospital completed.

The patients' clothing is modern, and care is taken to see that it is suitable and well fitting. Good provision has also been made for the care and storing of patients' clothes which are both in daily and occasional use. We would like to see an extension of the employment of the visiting hairdresser who attends female patients as at present comparatively few appear to have the advantages of her services. These could be of great value to many more in helping them to re-establish their self-respect.

Classes in physical exercise are held daily for both sexes and the classes in handicrafts are well organized both in the occupation centre and in the wards themselves. An occupation officer and two assistant officers are responsible for the progress that is being made with this therapeutic agency.

We have been much interested in the arrangements at the admission hospital for the early treatment of cases of mental disorder. There is a special room on each side for the treatment of cases by prolonged narcosis and we understand that further steps are to be taken to ensure quiet in the vicinity of the rooms.

The number of patients in the admission hospital to-day was 67, 45 on the female side and 22 on the male side. Patients who are up have free access to an excellent garden with a putting green. As convalescence proceeds occupations and physical exercises take an essential part in treatment. We witnessed classes of recently admitted patients in the Recreation Hall which by Royal Command is now known as King George V Hall.

We enquired into the dietary for the sick. Under this heading we naturally include patients suffering from acute or recent mental disorders. We were glad to find that a liberal supply of extras is obtainable, including plenty of fresh milk and some fruit. We hardly need stress the importance of a liberal supply of palatable food in the treatment of mental illness.



The enthusiasm shown by the medical and nursing staff in the work at the admission hospital, treatment centre, and generally throughout the hospital was noticeable.

The consulting staff at present consists of a visiting surgeon only. When the treatment centre has been completed to provide for examination of the eyes, nose, ear, throat, etc., we hope that other consultants will be appointed. To this list we would add the occasional services of an expert radiologist. Incidentally we saw some excellent films that have been taken by the hospital staff.

Work in the laboratory is closely associated with the clinical work in the wards, and we saw much to interest us there. Every newly admitted patient has an investigation of his condition made by laboratory methods.

One hundred and eleven post mortem examinations have been performed since the last visit.

The mortality rate per cent. for the year 1936 was 10·2. The deaths numbered 136—48 males and 88 females. Pneumonia was responsible for 42 deaths and senile decay 39.

Four inquests have been held since the last visit. In two cases death was due to accidental falls, and one to natural causes, and in one to the action of spirits of salts self-administered, prior to admission.

Nine serious, but not fatal, injuries occurred, seven due to falls and two to violence by other patients. In all cases the diagnosis of fracture was confirmed by X-ray examination.

With the exception of an outbreak of influenza in January the hospital has been entirely free from epidemic and zymotic disease.

Four patients have died from tuberculosis. At present 11 males and 3 females are reported to be suffering from this disease, the majority of them in acute form. Most of these cases were transfers from other hospitals.

The nursing staff consists of 88 male and 141 female nurses of whom 59 and 42 respectively are certificated or registered as mental nurses.

We have to thank Dr. Shore and his medical officers—namely Dr. E. J. C. Hewitt, Dr. B. M. C. Gilsenan, Dr. O. W. S. FitzGerald, and Dr. A. B. Carter, for every assistance throughout the course of our visit.

#### MONMOUTHSHIRE MENTAL HOSPITAL.

*March 17th, 1937.*

Our visit to this hospital, which started on the 15th, was completed to-day and we would like to state at once how fully we appreciate the very great difficulties with which the Medical Superintendent, Dr. Phillips, is faced by reason of the gross degree of overcrowding which pertains throughout the wards. This condition is accentuated by the fact that the majority of the wards were constructed many years ago, and that the whole hospital is built upon an extremely restricted site.

The completion of the admission hospital and two convalescent villas will provide 120 beds, although the net gain will be somewhat less, and the relief thus to be afforded during the next 18 months will be most welcome. In this connection the present figures of overcrowding, by day 89 on the male and 36 on the female, and by night 60 on the male and 47 on the female side must be borne in mind. It should also be remembered that 28 male beds will be lost when Maindiff Court is pulled down and that side rooms in all the old wards are urgently needed for conversion into extra store and cloak-room space and extensions of ward kitchens.

Overcrowding, therefore, in our opinion remains one of the main problems at this hospital. It is, we gather, the reason which has prevented even a start being made in the treatment of patients upon occupational lines. Except upon the routine work of the hospital and farm no patients are employed and no physical exercise classes or country dancing exists in any



ward. We have felt during our visit to all the wards that despite overcrowded conditions it should not be impossible to make a modest beginning in occupation therapy, although we agree that its full development will be delayed until more room is available. It is to be noted that on the female side there is no central sewing room and that all dressmaking and needlework is carried on in the day-rooms.

Redecoration is being carried out in some of the wards, notably in M.8A where a very pleasing colour scheme has been carried out, but many other wards are in a bad state, examples which come to mind on the male side are wards 1, 3 and 8. We hope that when redecoration is carried out a large number of old fashioned and ugly pictures will be removed. We understand that particular reasons exist at this hospital for the retention of spittoons; if that is in fact the case we trust new ones will be supplied.

Only 2 wards, one on each side, are provided with hot water ward basins in the wash-rooms. We hope the possibility of providing at least one hot tap in each ward wash-room which is not so furnished will be considered. The gardens on the female side are not as attractive as on the male. Female patients are said to be more destructive than male, but it is our experience at other mental hospitals that even destructive patients can be trained not to destroy plants. The destructive propensities here, in our opinion, are largely due to lack of other occupation. The paths in the female "top airing-court" are in a somewhat dangerous condition and should be re-asphalted.

Coming on to the question of the comfort of patients we would advocate the provision of individual towels for all patients, and that all male patients should be shaved at least twice a week. We understand that there are a few already who are so privileged.

Another important matter is the need for a canteen. We were surprised to find that a patient here is unable even to purchase a packet of cigarettes unless through one of the 74 male or 8 female patients who enjoy parole beyond the estate or unless he or she can secure inclusion in one of the town shopping parties. One of the most appreciated, as well as one of the most universal, amenities of a mental hospital in these days is the provision of a canteen. In 3 of the out-lying cottages there is no wireless and 2 of these are without a daily paper. Except perhaps in Bowlers Barn Cottage where there are only 5 somewhat deteriorated patients, wireless would be a great boon.

Steady progress is being made in improving the clothing of female patients. On the male side there is room for efforts of a similar kind, and we would suggest that the addition of a steam trousers press in the tailor's shop would be of advantage.

We were present on the 15th while dinner was being served in the main dining hall, and also in one or two of the wards. Dinner consisted of boiled salt beef, cabbage, potatoes and milk pudding with jam. One of us tasted the meat and found it somewhat tough and some complaints were made to us on this score. We were surprised to learn that a weekly dietary was still in force here. A 3-weekly or 4-weekly dietary is to be preferred as providing a greater variety, and we have discussed this matter with Dr. Phillips.

There were 1,297 patients in residence on the first day of our visit—689 men and 608 women. With the exception of 14 male and 12 female patients all these were certified. We note with regret that during 1936 only 2 patients were admitted on a temporary basis. This figure is a disappointing one and shows that the advantages of treatment without certification are still being little recognized in the area served by this hospital.

Fifty-one male (39 in the service or ex-service class) and 24 female patients rank as private patients and the charge for these is 22s. 9d. per week, the charge for rate-aided patients being 18s. 1d. The average weekly maintenance cost is 17s. 9·9d.

There are at the present time 2 males and 5 females out on long leave or on trial. The number of patients on the statutory books is therefore 1,304.



The nursing staff consists of 20 male and 14 female charge nurses, 65 male and 74 female ordinary nurses, and 10 males and 12 females on night duty. Sixty-two men and 16 women are certificated or registered as mental nurses, i.e. 65 per cent. of the men and 11 per cent. of the women, and 17 men and 20 women have passed the preliminary examination.

We have noticed that the teeth of many patients are in need of attention and we have ascertained that the visiting dentist has sessions of only 1 hour a week and, although the period of his visit is sometimes extended, we feel that a full morning a week should be the minimum session in a hospital of this size.

We have discussed the question of medical rounds by the assistant medical officers after the night staff have come on duty to all sick and admission wards with Dr. Phillips. We hope it will be possible to carry out our suggestions.

We feel that the methods employed for restricting the opportunity for the spread of infectious conditions, such as dysentery and enteric, would be enhanced by fixing in the sick wards a hand basin with running hot and cold water. This arrangement would also be appreciated by the nursing staff. We would mention as examples, M.8A, M.9, M.9A, F.8 and F.7. In the last-mentioned ward some modification of the methods by which infected linen is dealt with was discussed with Dr. Phillips and agreed to. The precautions taken in dealing with infected linen are in general satisfactory, the containers and their contents being transferred direct from ward to disinfectant. It is in the laundry, however, that there appears to be need for some reorganization, particularly in the arrangements for dealing with the reception of soiled linen. The present method of receiving linen in a central space, where no provision is made for its separation according to wards, is one which increases the difficulty of arranging for the respective wards to retain their own stock and may increase the risks of infection. A beginning is being made with the marking of linen to the individual wards, but we suggest that the further development in this scheme is that of marking to individual patients. To facilitate this desirable object Dr. Phillips has certain plans in mind and therefore we take the opportunity of stressing the need for such improvement at least in the sick and admission wards.

May we reiterate that we think that all patients should be provided with individual face-towels; that the wearing of night shirts should be encouraged on the male side, and that the number of bed jackets, in attractive colourings, should be greatly increased in all sick wards.

The arrangements for meals for the patients engaged in the kitchen premises call for improvement on lines suggested to Dr. Phillips.

The mortality rate for 1936 was 6.9 per cent. Since the last visit 86 patients have died, of whom 50 were men. In 77 of these cases post-mortem examinations were made (89.5 per cent.). Of the causes of death heart disease, kidney disease and influenza exacted the highest toll. In connection with this last disease it may be mentioned that in March, April and May of 1936, and since the beginning of this year there have been 181 cases affecting each sex in about equal proportions and 22 members of the staff, mostly women, were similarly affected.

Since the last visit a little over a year ago there have been 25 fresh cases of dysentery (19 men and 6 women), and 3 cases of enteric. It is gratifying to know that the activities of the laboratory include a careful examination of the excreta of all such cases, together with the examination of contacts. There is also a periodic review of all patients who have in the past suffered from this condition.

There have been 2 inquests on patients whose deaths resulted from suicidal attempts, in one case following injuries inflicted prior to admission.

Fractures numbered 12 about equally divided between the sexes, of which 8 were of bones of the lower limbs. In two of the cases the fracture was due to interference by another patient, and in 3 by stumbling over an obstacle in the wards. An X-ray examination was made in all but one of these cases.



At the time of our visit there were 57 men and 46 women confined to bed, that is approximately 8 per cent. of the total number of patients in residence. Of these 7 were receiving treatment for influenza, 3 for dysentery (all males), and 11 for tuberculosis; of the remainder the majority were suffering from various senile disabilities.

The out-patient clinic continues to be held once a fortnight at the Royal Gwent Hospital, Newport. In the alternate weeks a similar clinic is held at the Royal Gwent in connection with the Newport Mental Hospital. In view of the fact that the new admission hospital is actually being built, and will therefore in the near future provide suitable accommodation for the earlier treatment of mental disorders, we would emphasize, as our colleagues have done in the past, the real need for an increase in the number of sessions at Newport and also the advisability of another centre.

The interest of our visit has been greatly enhanced by the helpfulness of Dr. Phillips and by his intimate knowledge of all his patients.

#### NORFOLK COUNTY MENTAL HOSPITAL.

*May 21st, 1937.*

At our visit to this hospital, which has occupied the last two days, we have found that it continues to be administered for the welfare and benefit of the patients and that progress has been made in various directions.

During the year 1936 according to the statistics placed before us there were 232 direct admissions, of these 58 were received on a voluntary basis and 174 under certificate. The advantages to be gained from Section 1 of the Mental Treatment Act, 1930, continue to be appreciated in this county as is shown by the fact that since the start of the present year 35 per cent. of the direct admissions have been on a voluntary basis and that during the year 1936 and 1935 the percentages were 20 and 25 respectively. The advantages of Section 5 of the Act, however, have shown no signs of being utilized, as no patients have so far been admitted into this hospital on a temporary basis. This has been commented upon in previous entries, and having discussed this matter with Dr. Connell he assures us that no effort will be spared to familiarize the general practitioners of the County with the undoubted advantages of this Section. It is regrettable to think that in some cases patients may not have been given the advantages of being dealt with under this Section.

The proportion of voluntary and certified patients admitted direct from their own homes during the year 1936 was 100 per cent. and 82 per cent. respectively. An out-patient clinic is held fortnightly at the Norfolk and Norwich Hospital and Dr. Connell in addition holds a clinic at his hospital for those patients requiring more frequent treatment. The hospital serves the needs of a county whose population is widely distributed and practically entirely agricultural. It is of interest to mention that by the information supplied to us 24 per cent. of the direct admissions during the year 1936 were between the ages of 45 and 55 and that 44 per cent. were over the age of 55.

There appear on the statutory books the names of 1,127 patients, of whom 25 men and 36 women are voluntary and 424 men and 642 women under certificate. These patients were all in residence with the exception of seven who were away on leave or trial. The patients who belong to the service or ex-service class number 47. We believe we have seen all these patients and have found them contented and free from complaints excepting for a few on the score of detention. No private interviews were requested.

The weekly maintenance charge per head for the home patients is 21s. The average weekly maintenance cost as last ascertained is 19s. 7d.

The hospital, for the sake of description, can be divided into two separate groups of buildings, the older ones on one side of the main road for female



patients and the others, called "The Annexe," for male patients are situated on the other. Both groups have their own theatres, laboratories, kitchens and occupation centres, etc.

Overcrowding still exists on the female side where there is a deficiency of accommodation for 51 women by day and for 47 by night. On the male side there is a surplus of accommodation for 10 and 45 men by day and night respectively. We understand that the question of providing additional accommodation for the more recoverable type of admission and for convalescent patients is to be raised by the Superintendent. We hope that if extensions are to be made at this hospital the Committee will give this question their serious consideration as the provision of more modern facilities for treatment of the type of case just referred to seems to us to be undoubtedly desirable. This would in addition release accommodation which would provide opportunities for better classification.

Various additions and alterations have been made since the last visit—two wards have had added new sanitary annexes with bathrooms while many other wards have had their old type of washing basins replaced by modern basins, supplied with hot and cold water. Bedside lockers are being made and in due course it is hoped to supply these throughout the hospital. The larder accommodation, particularly in wards M.F. and F. 2, is restricted and we suggest that refrigerators should be provided in these two wards.

The dormitories are well kept and tidy and all the day-rooms are generally comfortable and well decorated. Re-wiring of the electric light system in some instances has delayed the usual redecoration. The addition of more arm-chairs in the day-rooms such as in ward F. 6 would add to the comfort of the patients. Wireless has now been installed in every ward. The patients have a plentiful supply of daily newspapers and weekly periodicals, but we feel that in some wards at least the book cases should be better stocked and that a scheme be put into operation whereby the books could be changed, at least every month.

The indoor amusements of the patients are well catered for and consist of talkie-cinema performances in the winter months, concerts, dances and ward games, such as darts, dominoes, cards and billiards. Ping-pong is to be shortly introduced on the female side.

Three female wards and one male are open to the grounds and two male wards are open to their respective gardens. Forty men and 18 women enjoy parole beyond the estate and 20 men and 92 women enjoy parole within the grounds. The ward gardens, particularly on the male side, have many and well-planted flower beds and are very well kept. On the female side the gardens in some instances could be improved by making more flower beds. Some of the garden shelters used by the patients from wards F. 3 and M.A. are in need of renovating, as they present rather a drab and dull appearance in otherwise attractive surroundings.

As a temporary arrangement we think that the visitors room on the female side could have a canteen provided at one end where tea might be served to patients and their visitors at a small charge, providing a margin of profit for the recreation fund. The opportunity should be taken at the same time, to redecorate this room; at the moment it strikes us as rather dreary.

We are gratified to learn that there has recently been a determination to develop more intensively physical exercises for both sexes. A nucleus of patients exists which has been receiving some instruction in such exercises, but there has been some diffidence on the part of the patients to join the classes. We gather this reluctance has been overcome and we stress the desirability of giving daily instruction.

Combined with exercises we would suggest games of a type likely to stimulate the more apathetic type of patient. The short display given to us by a group of women was one similar to that given before the patients at a recent concert, when their performances gave much pleasure. On the male



side a similar effort is being made and we hope that those who are interesting themselves in it will receive every encouragement.

We are hopeful of a further advance in occupational therapy in the wards where patients are of a type unsuitable for the crafts centre. We realize that there are difficulties at the moment on the female side which are due to shortage of nursing staff. We learn that on the male side, too, a greater effort is to be made to organize both occupations and games. An additional playing field is to be provided exclusively for the use of male patients, and a bowling green will be included, as well as a football pitch.

In the laundry, where several new appliances have been installed, for example—motor driven calendars, electric irons and a multi-roller ironing machine, a double steam clothes press is to be provided and with this it is intended to give attention to the pressing of men's suits. We discussed with Dr. Connell the desirability of extending the use of a modern type of underclothing on the female side. We would like consideration given to the possibility of marking all clothing to the individual wards at least, and, in selected wards, marking to individual patients.

We are satisfied that the standard of ward hygiene is good; an increase in the number of bins for soiled linen and refuse would be an advantage. A mild outbreak of paratyphoid A bacillus gave cause for some concern, but a review of all the cases in the ward affected, by bacteriological and serum tests, has resulted in carriers being ascertained, and isolation of all cases has been effected.

During the influenza epidemic of the earlier part of the year 100 patients suffered from this condition together with 20 of the staff; in type it followed that affecting the ordinary community outside. The tuberculosis rate for the year 1936 was 17·6 for the males and 3·5 for the females; this compares with the mean rates of 6·8 and 4·5 for all mental hospitals. At the time of our visit three men and seven women were suffering from active tuberculosis, while 13 and 7 respectively were regarded as quiescent.

Thirty-seven men and 93 women were confined to bed; the larger number on the female side being mainly accounted for by the preponderance of patients of a senile type. We are satisfied that these patients were receiving every nursing attention, and on the medical side we were impressed by the familiarity with details relating to the individual cases.

The laboratory is closely associated with the clinical activities of the wards and its services in connection with the bacteriological and serum investigations of the enteric cases have been invaluable.

The dietary is on a three-weekly rota and permits of a choice of two meat courses for dinner; we consider this latter point to be of especial interest.

For the year 1936 the mortality rate was 6·2 per cent. on the male side and 5·4 on the female.

Since the last visit in January, 1936, deaths have numbered 103. (It is of interest to record that of a total number of deaths 50 per cent. were over the age of 65.) Post-mortem examinations were made in only 25 per cent. of these cases.

Of the causes of death, brain disease (25), heart disease (25), and pneumonia (15), were the commonest; tuberculosis accounted for 8 and cancer for 13.

Inquests during the same period numbered three—death in one case being from natural causes, in one from suicidal attempt within the hospital and in the third from suicidal attempt prior to admission.

Fractures amounted to five—in one case the fracture was secondary to bone tumour, in one the result of the patient's own action when climbing through a window, and the remainder were accidental.

The nursing staff totals 180—77 male and 103 female. Of these 8 and 12 respectively rank as charge nurses and 12 and 21 are available for duty by



night. In the returns for the year 1936 we note that 64·6 per cent. of the male staff and 32 per cent. of the female were certificated mental nurses. In the early part of last year the hospital lost the services of Miss Wheatley, the matron, through death; she had been a member of the staff for over 42 years.

We were accompanied by the medical superintendent throughout the course of our visit and we are indebted to him for his courtesy and attention. We also received every assistance from his medical officers in their respective divisions.

#### NORTHAMPTON COUNTY MENTAL HOSPITAL.

*February 23rd, 1937.*

Visiting this hospital, to-day and yesterday, we are satisfied that, though much work remains to be done in regard to the occupation of patients generally and much, also, in respect of the general improvement of the wards in the main block, yet considerable progress has been made during the past year, and we are confident that the spirit of enthusiasm which so clearly characterizes the medical superintendent and his staff will result in that progress being maintained.

There are to-day upon the statutory books the names of 1,069 patients; 3 of these are at present absent upon long leave or trial. Four hundred and sixty-four men and 550 women are in residence as certified patients, 22 men and 30 women are voluntary patients. No patient is at present receiving treatment upon a temporary basis. Of the 163 direct admissions which took place during 1936, 54 (18 men and 36 women) were voluntary and 2 (1 man and 1 woman) were temporary. Of the 28 direct admissions since January 1st, 1937, 20 (9 men and 11 women) have been voluntary and the remainder have been under certificate.

It is gratifying to note the increase in the proportion of patients admitted upon a voluntary basis. We understand that this is largely due to the advice and assistance afforded to patients at the local out-patient centre to which we refer later. We hope that relieving officers and others who are in this area initially responsible for the disposal and treatment of mental patients will come to a fuller realization of the facilities afforded by the Mental Treatment Act, 1930, for treatment, in suitable cases, upon a temporary basis. According to the returns before us this method of avoiding certification is rarely employed in this county, at any rate in the case of rate-aided patients.

We have, we believe, seen all the patients in residence and have spoken to many. In addition, we granted private interviews in 3 cases. Generally speaking, the patients were quiet, well behaved, and contented. The women were neat and tidy in appearance, but we consider that the provision of a steam press would create a smarter effect in the clothing of the men and would increase its length of wear.

On the female side we found a few patients in each ward engaged in rug-making. We hope that very shortly it will be found practicable to introduce in all the wards a variety of arts and crafts and that many more patients will be encouraged to interest themselves in some form of occupation. We understand that Dr. Hayes is considering the adaptation of the old dining room of female E ward for the purpose of a female occupation centre.

A former clothing store is in the course of conversion into a male occupation room for the purposes of weaving, manufacturing link-wire fencing and other occupational processes involving the use of machinery. This will undoubtedly supply a long felt want as, at present, apart from rug-making and handloom weaving in the wards, other occupations such as brush making are carried on in the boot-repairing or other workshops.

Allied to the question of occupation, we discussed with Dr. Hayes the possibility of organizing classes in physical training and in country dancing. We understand that the commencement of these activities is in contemplation.



The wards were well kept and in good order. All the sanitary annexes in the main block are in turn being modernized, and the question of the provision of clinical rooms is being kept in mind. The day rooms in the admission hospital and in both convalescent villas were particularly bright, well furnished and comfortable. We were sorry, however, to observe in the main block that long backless forms are still in use in a number of the dining rooms, and that the day-room furniture in most cases, is of the old institutional type.

The new nurses' home was opened in June last. It is a pleasantly situated, well designed building providing accommodation for approximately 80 nurses. The provision of some similar form of accommodation upon a smaller scale for some 15 to 20 of the male nursing staff is receiving attention. Considerable alterations have been completed since the last commissioners' visit, in the general stores where, in addition to increasing the ground floor space, an additional floor has been added and an electric lift installed. The automatic telephone system and the code call system are now complete and, among other improvements, the engineer's shop has been enlarged. Four new emergency exits are to be constructed in the recreation hall; two of them will lead directly from the gallery.

The canteen is open daily from 1 p.m. to 4.30 p.m. for the use of patients, and from 12.30 to 1 p.m. for the use of the staff. The profits resulting from its sales are utilized, to some extent, for the purposes of defraying the cost of excursions by numbers of the patients during the summer months.

There are at present vacancies, calculated according to the prescribed space allowance, for 13 men by day and 15 men by night. On the female side, where 9 mentally defective boys are at present under care, a deficiency of accommodation exists for 22 persons by day and 21 by night.

Private patients, including service and ex-service patients, number 59; the weekly maintenance charge in their case is 32s. for patients from within the county and 42s. 6d. for those outside. The weekly maintenance charge for home patients is 21s. 6d. The average weekly maintenance cost was last ascertained as 20s. 1½d.

The death rate for the year ending December 31st, 1936 was 7·3 per cent. (male 6·4 per cent.: female 8·0 per cent.), while, since the last visit 11 months ago, there have been 70 deaths (male 26: female 44) followed in 39 cases by post mortem examination. The chief causes of death were:—heart disease (27); pneumonia (14); cancer (7); and tuberculosis (6).

The general health of the patients has been good. The hospital has been entirely free from influenza and there has been no case, among the patients, of dysentery or enteric fever. At present 12 patients (male 4: female 8) are suffering from tuberculosis in active form. Of these, the four male patients are undergoing open-air verandah treatment.

During the period under review there have been 11 serious but non-fatal casualties—all in the nature of simple fractures. Seven were due to accidental falls. Two were sustained during struggles with other patients, and the remaining 2 were sustained during epileptic seizures.

At the time of our visit there were 117 patients in bed. This figure represents 10·9 per cent. of the patients in residence. All were in receipt of skilled medical and nursing attention.

Paying a visit to the laboratory, we were particularly impressed by the very extensive and detailed investigations carried out on all patients on admission, and on others as necessary, and by the excellent system of filing all pathological reports on individual patients. Also, in addition to the usual physical examination, each new patient is examined by the visiting dentist and the visiting ophthalmic surgeon.

The out-patient centre at the Northampton General Hospital is held by Dr. Carse, the Deputy Superintendent, assisted by another medical officer. On an average, 50 cases attend each week. Dr. Carse also holds a child guidance clinic weekly at the Dallington Children's Home.



The present nursing staff consists of 20 charge-nurses (male 9 : female 11), 126 ordinary nurses (male 56 : female 70) and 29 night nurses (male 13 : female 16). Of these, 69 (male 48 : female 21) are certificated or registered as mental nurses, while 52 (male 23 : female 29) have passed the preliminary examination.

#### NORTHUMBERLAND MENTAL HOSPITAL.

*November 19th, 1937.*

This hospital, now known as St. George's, is one of the older types whose wards and their overcrowding are a handicap to proper classification, to modern forms of treatment and to the necessary extensions for occupational and recreational facilities. In view of this, we were interested to learn that it is proposed to build an admission unit together with two convalescent villas. Further structural developments at the hospital, we understand, are to be reconsidered in due course.

Throughout our visit, which we started yesterday afternoon, we were particularly impressed by the well-kept state of all the day-rooms and dormitories and also by the high standard maintained in the patients' personal appearance and dress. On the male side the suits were exceptionally well-fitting and great care had obviously been given to the neatness of both neck and footwear. The relationship between patients and staff was noticeably good, an atmosphere of kindness and understanding prevailing.

The patients' indoor and out-of-door recreations are well studied, and every ward, except one, has wireless. Female III is the ward without wireless and it is here that the more disturbed women are accommodated. We think, especially as on a rainy day like to-day, a wireless might occupy the attention of some at any rate who will not busy themselves with reading or other forms of occupation.

There is a central library and books which are circulated to the wards are frequently changed. It was pleasing to see the number of periodicals and newspapers supplied and that there were evening papers in addition. A new canteen-café has been opened in the grounds and is greatly appreciated by both the patients and their visitors. A hairdressing saloon, we understand, is shortly to be equipped and opened for female patients.

Since the last visit additions and improvements have been made in the kitchen. The laundry is now to be provided with new machinery and the special section for foul linen is to be re-equipped.

Both ward linen and patients' clothing are marked with a heavy ink type. We would like to suggest, at any rate as regards the latter articles, that the distinguishing marks be sewn by machine.

There is still great scope here for the extension of handicrafts as a means of stimulating the interests of patients. On the male side a small room is set apart where 15 men are engaged in brush-making and various forms of wood-work under the direction of 1 member of the staff. Similarly on the female side, a room is used where 12 patients do simple knitting, embroidery and painting under 1 nurse. Little attempt is made to introduce any occupations into the wards. Much good could be done if some male and female nurses could have a short spell of duty in these occupational rooms and if the two nurses, now in charge of handicrafts, were to visit the wards periodically and encourage the patients in light and simple tasks.

Classes in physical exercises are held daily for male patients but only recently have any been begun for the women, and these are held only twice weekly. These classes are held in the admission wards but it is hoped that, through time, better accommodation, allowing of larger classes will be available.

Two villas and 1 ward are administered on "the open door principle," the 2 villas (male patients) being open to the hospital grounds and the ward (female patients) to its garden. Ten men and 36 women enjoy parole within the



grounds and 108 men have parole beyond the estate. It is with satisfaction that we are able to record that those men having outside parole constitute approximately 21 per cent. of all male patients in the hospital.

For the year 1936 and the current year (10½ months) the direct admissions have numbered 182 and 144 respectively. Nine per cent. approximately of the former and 14 per cent. of the latter were received on a voluntary basis and the percentages for temporary patients were 3·3 and 2. As can be seen from these figures there has been a gradual increase in the number of voluntary patients admitted. The number of such admissions is still, however, small, but Dr. East informed us that he has repeatedly taken steps to acquaint the several medical practitioners and relieving officers concerned in the area served by this hospital with the advantages which can be gained from both sections 1 and 5 of the Mental Treatment Act, 1930. The area served by this hospital is wide and scattered, consisting of the whole County of Northumberland and the Borough of Tynemouth.

Approximately 70 per cent. of the direct admissions for this year came direct from the homes of the patients and, we are informed, included all those received here under the provisions of the Mental Treatment Act, no voluntary or temporary patient coming from the public assistance institutions.

The weekly maintenance charge for private patients is 33s. 10d. and that for the home patients amounts to 19s. 10d. The average weekly maintenance cost as last ascertained is 18s. 8·68d.

According to the accommodation figures placed before us there are vacancies for 30 men by night but a deficiency of available space for 19 men and 59 women by day and for 17 women by night.

There appear on the statutory books the names of 927 patients of whom 512 are men and 415 women. There are 39 private patients, which number includes 30 belonging to the service or ex-service class. All these patients were in residence with the exception of five who were away on leave or trial.

The general health of the patients has been satisfactory. During February there was an outbreak of influenza affecting 124 patients, of whom all but 3 made good recoveries. At the time of our visit 39 of each sex, that is 8·4 per cent. of the total number in residence, were in bed and appeared in receipt of skilled nursing attention. In the male admission ward, which is also used as a sick ward for all tubercular patients, nursing facilities could be greatly improved by the installation of a wash basin with running water in the dormitory.

There is still no laboratory here, which means that clinical investigation on patients is limited and that some common forms of treatment, for example, malaria, are not given.

The death rate for the year 1936 was 10·5 per cent. (male 11·3, female 9·5) which is higher than the average for all mental hospitals in England and Wales.

Since the last visit there have been 80 deaths (male 45, female 35).

Only in 7·5 per cent. of cases was death followed by post-mortem examination. Among the principal causes of death were : heart disease (22), organic brain disease (11), general paralysis (7) and tuberculosis (7). Two inquests were held : one on a patient who absconded while on parole and drowned himself; and the other on a patient who accidentally fell and was fatally injured while working in the grounds. Only 2 other casualties occurred during the period under review—both simple fractures due to accidental falls.

The present nursing staff consists of 18 charge nurses (male 10, female 8), 110 ordinary nurses (male 58, female 52), and 25 night nurses (male 12, female 13). Of these, 66 men and 28 women are certificated or registered as mental nurses and an additional 10 men and 13 women have passed the preliminary examination.

We have to thank Dr. East and Dr. Illingworth for their assistance throughout the course of our visit.



## NOTTINGHAM COUNTY MENTAL HOSPITAL.

*February 5th, 1937.*

This county mental hospital contained at the date of our visit 372 male and 493 female patients. Twelve men and 23 women were voluntary patients; but, at the date in question, not a single temporary patient was in residence, and there had been only 2 admissions upon this basis during 1936. The absence of temporary patients shows, in our view, a lamentable disregard on the part of the general practitioners and the relieving officers of this county of the facilities which the Mental Treatment Act, 1930, affords for this type of treatment. We hope that further efforts will be made to ensure that mental patients in this area are not needlessly deprived of the benefit of this section of the Act.

On the other hand it is gratifying to note that of the 204 admissions to the hospital recorded during 1936 no fewer than 163 took place from the homes of the patients, and that 35 patients only came by way of a public assistance institution.

Overcrowding, calculated upon the standard space allowance, still exists to the extent of 54 males and 53 females by day, and 53 males and 45 females by night: this is most pronounced in the admission and in the sick wards. Upon the male side it will, no doubt, be alleviated somewhat by the completion of the new villa, now in the course of erection, which will house 50 male patients. The removal of the patients, referred to in the last commissioners' entry, who are considered suitable for treatment as mental defectives has not yet taken place, but their early departure would seem to be desirable from every point of view.

Generally speaking, we found the wards in excellent condition; in particular the judicious use of flowers and plants in the day-rooms prevented their appearance from becoming institutional; the dormitories were clean and well warmed and the bedding was kept in an excellent state. We consider, however, that the provision for lighting the male infirmary was quite inadequate for a ward in which large numbers of sick patients have constantly to be nursed and kept under observation. There seems to be no reason why immediate improvement in this respect could not be effected by the fitting of bulbs of higher candle-power, and secondly by the utilization of several existing lighting points which are not at present in use.

The conveyance of food to the wards and its service in a properly heated condition are, we understand, receiving the consideration of the committee. We were present when dinner was served in one of the female wards; neither the food itself nor the plates upon which it was distributed were adequately warm. We hope, too, that it may be found possible to provide teapots for the use of patients in the admission and convalescent wards instead of the jugs at present in use.

The sterilization and cleansing of different utensils for dairy purposes appear to take place in three distinct parts of the hospital; that is to say, in the farm dairy itself, in the kitchen dairy and in the individual ward kitchens. It would be well if all cans used for the conveyance of milk were properly sterilized and cleaned at a single centre.

The activities of the 19 male patients in the handicraft room are most promising. Although much cramped for space there is a good variety of occupations—basket-work, coir-mat, brush and net-making, machine knitting of socks and ties and painting. The erection of an occupation workshop for men is contemplated, and we hope that this will be undertaken without much delay.

A large group of 98 male patients is employed on the farms and in the gardens; and in passing we note with pleasure that 12 women are similarly employed. The numbers of men occupied in some of the utility departments are small. According to the miscellaneous returns for 1936 there were only



7 patients in the tailors' and shoemakers' shops, 5 carpenters and painters, and only 2 upholsterers. We hope that every encouragement will be given to male patients to occupy themselves usefully in the various workshops.

Now that the extension of the sewing room has been completed it is proposed to begin handicraft classes for female patients. Although the space available will not allow of many patients being trained at the same time it should be possible, with the co-operation of the nursing staff, to extend the scope of these handicrafts rapidly in the various day-rooms. Already much sewing and repairing are done in these rooms, and we saw some attractive fancy work that had been done by the female patients. The occupation of the more introverted and retarded patients presents a difficult problem. But when the handicrafts class has been working for some time no doubt suitable occupations for such patients will be organized. We were much interested in the efforts of the nurses to train (by means of physical exercises and simple games) patients much reduced in mentality.

The outdoor recreation of the patients is properly catered for. On the male side ward cricket matches are organized during the summer, and a new bowling green is being provided for the use of the male patients. In the day-rooms the supply of reading matter appeared adequate. At present the patients in most of the wards are able to enjoy wireless entertainment on 2 or 3 evenings in each week. We feel sure that the committee will give favourable consideration to the extension of facilities for this form of entertainment.

There has been no new case of dysentery or enteric during the period under review, and at present the hospital has no active cases of these diseases. Thirty-six cases have intestinal cards—23 dysentery and 13 enteric. On both sides these cases are segregated in one ward. We gave special attention to the precautionary measures adopted to prevent the spread of infection in case the condition becomes active in any of those patients. One of the most important measures is the proper treatment of soiled garments and linen used by these patients. A sound principle is that the handling of these articles in the wards should be reduced to a minimum. The soiled garments are placed in special bins and taken to the laundry, where both articles and bins are placed direct in the auto-clave. One disadvantage of this method is that the linen is likely to be permanently stained if it has been much soiled. To avoid this staining it has become the practice on the female side of the hospital for the nurses to give some preliminary treatment in the bathroom to the garments which are badly soiled. In the event of this procedure being continued we discussed with Dr. Reid the desirability of making better provision for this preliminary cleansing in the sanitary annexe of the ward where the intestinal cases are segregated.

Another precautionary measure which, we hope, will be taken now that the pathological laboratory has been refitted is the bacteriological examination of all new admissions. We understand it is proposed also to continue the periodic examination of all cases on cards.

At present there are 132 patients (males 39, females 93), that is, over 15 per cent. of the total number in residence, being nursed in bed. A good proportion of this large group of sick female patients is comprised of elderly and feeble persons. The overcrowding in the sick wards makes efficient nursing somewhat difficult, but in spite of this a good standard is maintained. Full use is being made of the verandahs, and it is commendable that much discretion is exercised in selecting the patients who sleep out of doors.

Although there is such a scarcity of accommodation we are glad to find that practically every ward has its clinical room, which is suitably furnished and is obviously used for its specific purpose. The folder system of keeping patients records and clinical notes has been in operation for several years at this hospital and is regarded as quite satisfactory. The folders are kept in the clinical rooms. We had occasion to consult the clinical notes of several



patients and found in every case a full and informative account of the mental and physical conditions.

The mortality rate for 1936 was 6·6 per cent., which approximates to the mean rate for all mental hospitals in this country. We note with satisfaction that post-mortem examinations were made in 39 of the 43 cases of death which have occurred during the period under review. In the statistical analysis of the causes of death the only feature which calls for special comment is the relatively high proportion due to tuberculosis. The rate is 12·1 as compared with a mean rate of 4·6 per thousand for all mental hospitals in England and Wales. There have been no inquests and not a single case of serious injury. We examined the casualty books in several wards and we are satisfied that the greatest care is taken to record all injuries sustained by the patients.

The miscellaneous returns for 1936 indicate that the total staff of charge and ordinary nurses is 116 (males 54, females 62); but it is pointed out that the female staff is 9 below the normal establishment for the hospital. The number of nurses on duty each night is 12 (males 5, females 7), which gives a proportion of 1 nurse to 72 patients. The corresponding mean ratio for all county and county borough mental hospitals in this country is approximately 1 to 53 patients. It is recognized that wide variations from this mean ratio may reasonably occur since the size and arrangement of dormitories and many other relevant factors differ greatly in various hospitals. But the disparity between the mean ratio and that at this hospital is marked, and so we gave special attention during our visit to the arrangements for night nursing. We are satisfied that the night supervision is adequate in most of the dormitories, but we are inclined to the view that the night supervision needs supplementing in those dormitories where there are numbers of new admissions and of epileptic and difficult patients, such as F.1, F.5, M.7, M.11 and M.13.

We were sorry to hear, on our arrival at the hospital, of Dr. Waldo's indisposition and we hope he will soon make a good and complete recovery. In his absence, Dr. Reid, the deputy superintendent, conducted us through all parts of the hospital, and we are much indebted to him for facilitating our enquiries in every possible way. A few months ago Dr. T. A. Ratcliffe was appointed to fill the vacancy for an assistant medical officer.

The administration of this hospital is obviously in very capable hands, and we are sure that the welfare and the interests of the patients receive every consideration from the committee, the medical superintendent, his medical colleagues and the nursing staff.

#### OXFORD COUNTY AND CITY MENTAL HOSPITAL.

*June 19th, 1937.*

Spending the whole of Friday, June 18th, and a good deal of the previous day at Littlemore Hospital, we have paid the annual visit on behalf of our Board. Before entering into details of our visit, we must mention the serious loss which the hospital, since last visited by Commissioners, has sustained by the resignation of Dr. Good, after 41 years of service, during three-quarters of which time he has been Superintendent.

The older part of the hospital is 90 years old and, as Superintendent, Dr. Good's first endeavour was to get the wards more into line with modern ideas of comfort. Attracted, so we have been told, at first more to the bodily approach to mental disorders but later having become interested in the then newer methods of psychological investigation, his efforts, especially after being brought in touch with an increasing number of war illnesses of the nervous type, became largely diverted towards methods of so-called psychotherapy. Hence arose in the out-patient department at the Radcliffe Infirmary, the section for nervous disorders of which, as Honorary Physician, Dr. Good has been in charge for some 18 years.



Though not the first example, either in a general or a mental hospital, of out-patient treatment of mental illnesses, it was the first time that such work had been carried out in a general hospital by mental hospital physicians. Besides teaching the important lesson that some of these cases do better as out-patients than if admitted to hospital, this clinic has been the father of the numerous similarly arranged sections in other voluntary general hospitals; indeed, there are now very few counties without one such centre, and some have several.

We should like, too, to allude to the extent to which the open-door principle is to be found here: proportionately perhaps more than in any other mental hospital. This was due to Dr. Good's resolve, on the return of the hospital to its normal function, to resort as little as practicable to the locking of doors; with the result that such locking is restricted to 2 wards on each side, representing only 20 per cent. of the total patients and, further, from the other wards the stops from windows on both floors were removed. At the same time, and with the goodwill of the authorities concerned, he was able to establish a valuable reciprocity between the Radcliffe and this hospital with respect to their nursing staff.

Another important side of Dr. Good's work has been the duties which, at the wish of the Committees concerned, he has undertaken in relation to mental deficiency and child guidance. In the result, considerable co-ordination has been effected, paving the way for the still further development of a mental health service. Dr. Good was lecturer in Psychiatry in the University; and in 1930 was President of the Royal Medico-Psychological Association.

To succeed him the Committee of Visitors appointed Dr. Robert William Armstrong (B.Sc., M.D.Belf., D.P.M.) who for 4½ years had been Deputy Superintendent at St. Ebba's (Ewell) and who, with previous service at 4 other London mental hospitals and at Glengall (Ayr), had had some 13 years' mental hospital experience. In the course of our visit we have discussed various topics with Dr. Armstrong. We can see that he has come well equipped for his new and responsible duties; and, besides offering him best wishes for success, we should like to express the satisfaction we feel in his realization of the fine opportunities offered by the proximity of the hospital to this University City—opportunities not only for treatment and research but also for the development of teaching arrangements in which this country is sadly lacking.

As we have already observed, a substantial part of the buildings of this mental hospital is of old design and construction. We have not ceased to bear this in mind in enumerating certain matters which impressed us, some favourably, some unfavourably, as we went round the wards and administrative portion of the hospital.

Whatever the limitations imposed by the structure of the hospital, we think, nevertheless, that the present general storage accommodation, which is really comprised of basement rooms, is far too limited and restricted to serve its present needs. Considering the difficulties which must be experienced in this respect, the arrangements made were very creditable, but in relation to some of the articles, the fact of hot weather was noticeable.

Again, the nurses' mess-room is situate upon the first floor, and forms part of what was formerly one of the female wards. It seemed to us that as a mess-room it had had its day. Moreover, its windows look out on to a part of the grounds in which the least favourable type of patients take their exercise. If it be possible, we feel sure that the staff would appreciate its location in the nurses' home itself.

Some of our attention was claimed by the question of ward furniture. The day-room of male 5 is provided with a most comfortable type of arm-chair with a back just high enough to support the head of the occupant. Many of these, because in need of considerable repairs, were about to be replaced by new ones lower in the back. We believe that the patients would appreciate efforts to retain the chairs with loftier backs. The day-room of female 6, in



which patients of poor type and difficult behaviour are classified, impressed us as being bare and rather uncomfortably furnished, even allowing for the fact that the tables had been taken out for use in the gardens. The ward is due for re-decoration and, when this is done, were the walls well supplied with pictures and other objects of interest introduced, and were chairs and settees substituted for the old-fashioned wall-benches, and again were a liberal supply of cheap illustrated periodicals maintained, we feel that the patients would re-act favourably to such amenities.

The library is under the charge of the chaplain, the Reverend B. Lloyd, who performs much valuable work in this particular. We noticed, however, in the wards a diversity of method in keeping available for patients' use such books as were issued from the Central Library, with the result that in some of the wards the supply seemed either deficient or not sufficiently visible. We should like to see in each day-room a small book-case of 3 or 4 shelves, each containing room for a dozen books, or a couple of shelves, each containing room for  $1\frac{1}{2}$  or 2 dozen books; we think that this would result in a far neater appearance, would make the books more accessible, and also would inspire the patients with the idea of keeping them properly.

There is, adjacent to the ward garden of the female infirmary ward female 8), a large wooden army hut approximately 90 ft. long by 24 ft. wide: it has provision for sleeping and lavatory accommodation. It is at present disused and admittedly needs renovation including, in places, repairs to make it waterproof; but it seemed to us to be well worth some effort to make it again serve some useful purpose—for example, as a canteen or an occupation-therapy room. Naturally, before deciding what advice to give as to its use, Dr. Armstrong would desire to consider which is the most pressing of the hospital needs. The question of ease or otherwise of access to this hut is a point which may also have to be borne in mind.

Since the last Commissioners' visit, the extension to the nurses' home has been completed. A greenhouse has been erected and at the farm an isolation piggery has been constructed and a water-jacketted cooker has been installed. The gallery of male 3 has been re-floored. At the time of our visit the hospital locks were being re-suited, and inter-locking covers were being fitted to the hydro-extractors in the laundry.

Dr. Armstrong mentioned to us certain other improvements which are contemplated, mostly in connection with sanitary annexes, the plans of which are about to be sent to our Board. The need for still further sanitary fittings and improvements in order to bring these matters up to modern standards is appreciated; but in order to provide them, structural alterations would be required which, at the moment, it is not desired to undertake.

The number of patients in residence was 858 in the proportion of 316 men to 542 women. There were 4 patients out on long leave or trial; no patients were boarded out under the provisions of Sections 26 or 57 of the Lunacy Act, 1890. During 1936 direct admissions numbered 200, of whom 169, or 84 per cent., came direct from their own homes; this number included all the voluntary, and all but one of the temporary, patients admitted. Admissions upon a voluntary basis numbered 54, or 27 per cent.; 7 temporary patients were admitted. A fair amount of use—though not so much as in many mental hospitals—is made of the valuable system of allowing patients out on trial by way of testing their fitness for full discharge, but to none of the 25 cases so allowed out in 1936 was any money allowance granted.

The weekly maintenance charge is 23s. 11d. per week for home patients and 31s. 6d. for private patients. The average weekly maintenance cost was last ascertained to be 21s. 10.586d.

The death rate for the year 1936 was 7.6 per cent., the percentages for the male and female sides being 9.0 and 6.8 respectively. The average for all public mental hospitals for this year was 6.8 per cent.

Deaths during the period under review, namely the last 16 months, numbered 90 (male 40, female 50). All were from natural causes, verified by



subsequent examination in 70 per cent. of the cases. The principal causes do not call for comment, except, perhaps, for the fact that pneumonia constituted 30 per cent. of them (male 14 and female 21). Only 2 deaths were due to tuberculosis; of which disease there are at present known to be 12 cases on the male and 3 on the female side.

At the time of our visit only 20 men and 12 women were being nursed in bed. These figures represent the low percentage of 3.7 of the total number in residence. We felt sure that the standard of both medical and nursing attention here is high.

During the same period there have been 14 cases of simple fracture of a bone and 1 of dislocation of the shoulder. One of these casualties arose from one patient pushing another; in 2 instances the mode of origin could not be ascertained; 2 were sustained during epileptic fits and the remainder were the result of accidental falls.

The nursing staff consists of 8 men and 11 women of charge and 55 men and 72 women of other rank. Of this total of 146 nurses, 8 men and 11 women are on duty each night. The good proportion of 66 per cent. of the men are certificated or registered as mental nurses, but only 18 per cent. of the women.

Divine Service is held both in the morning and afternoon of every Sunday.

Dr. Armstrong has to assist him Dr. F. M. Stewart as deputy medical superintendent, Dr. F. J. Napier as assistant medical officer, and Dr. K. O. Neuman as pathologist.

#### SALOP COUNTY MENTAL HOSPITAL.

*February 17th, 1937.*

Two questions of paramount importance are at present occupying the attention of the Visiting Committee of this mental hospital. Though we do not wish to anticipate any discussions that may take place between them and our Board on the desirability of building a nurses' home and admission hospital we feel that some observations on the present accommodation may prove of interest.

In particular we would like to emphasize the fact that in most parts of the country it is becoming increasingly difficult to find young women who are willing to take up nursing in mental hospitals. We feel, therefore, that every incentive should be given them in the way of good accommodation and opportunities for recreation. In this hospital we consider the standard of the former to be much below that which we are accustomed to find elsewhere.

The majority of the nurses sleep in small rooms adjacent to the wards and similar to the single rooms in use by patients. These rooms are not heated and, in common with the dormitories, are apt to become very cold; they have no fixed basins with hot and cold water. It must be very unusual to find in a hospital, as in this one, the nurses sharing sanitary conveniences with the patients owing to the inadequate number of w.c.s. We feel that this must be particularly unpleasant for the nurses in wards with patients of defective habits. The nurses also use the patients' baths, and their linen is washed in the same laundry.

At present the admission of new patients is to the male admission and to female 5 wards. The former is a small ward with only 12 beds and is entirely reserved for new cases, but the latter, with 71 beds, accommodates all types of patient and is not, for this reason, suitable as an admission unit.

Among the contemplated improvements are the erection of a house for the assistant medical officer and of 10 staff cottages; sluice basins are also to be provided in all wards where they are not already fixed. We are extremely glad to hear that the installation of a new hot water and heating system is receiving consideration. This is undoubtedly a necessity in those day-rooms



and dormitories where no heating system, except by way of open fires, at present exists. Where there is such provision, as in the four "back" wards (female 5 and 7 and male 6 and 7), the system, in our view, is not sufficiently effective. Our observations in this connection do not apply to Copthorne, Oxon Hall or the Isolation Hospital.

Since the last Commissioners' visit a verandah has been erected outside male wards 6 and 7; the Chapel road is being relaid and widened, and fresh lavatory basins are being provided in female dormitory 2.

Apart from the deficiency in temperature we found the day-rooms and dormitories comfortable, well furnished and very clean. Most of the day-rooms would improve in appearance by the addition of still more posters and pictures. Ample provision is made for reading matter by way of daily newspapers and an extensive central library.

There are, at present, no facilities for heating plates in the ward kitchens or sculleries; we hope that provision may be made for this purpose when a new central heating system is installed.

We believe that one of the chief obstacles to the proper organization of occupational activity in this hospital is the comparative shortage of nursing staff who would be required to assist in this direction. The miscellaneous returns from this hospital for 1936 disclose the proportion of patients to nurses as 14·7 to 1 by day as compared with an average proportion in all mental hospitals in England and Wales of 11 to 1.

Upon the female side Miss Evans, the Occupation Officer, continues to attend during 4 afternoons weekly. The handicrafts class, for the organization and instruction of which she is responsible, numbered 20; most of these were employed upon basket making. We discussed with Dr. Hughes the possibility of Miss Evans visiting the ward day-rooms with the object of organizing some similar activity amongst the large numbers of unoccupied female patients whom we observed during the course of our visit.

A number of male patients were employed in the workshops. We were particularly impressed by the fact that the entire supply of cloth for the clothing of the male patients is spun and woven in a small weaving shed in the hospital grounds; it is sent away for finishing purposes only. The male patients' clothing generally reflected the result of this enterprise and of the provision of the new steam clothes press in the tailor's shop.

The female patients were adequately and neatly clothed, but we consider that their appearance would be much improved had they the advantages of a hairdressing establishment. This innovation has proved most successful in several mental hospitals.

The hospital possesses 2 excellent canteens situated in the visiting room on each side. These are open 3 times a week for a period of approximately 1 hour and also upon visiting days (Thursdays) from 2 to 4.30 p.m.

Weekly cinematograph entertainments, concerts and dances were, at the date of our visit, temporarily suspended owing to an outbreak of influenza, but, generally speaking, there appeared to be no lack of social activity or of recreation for suitable patients.

The mortality rate for 1936 was 6·8 per cent. The number of deaths since the last visit, just over 12 months ago, has been 66, 33 of each sex. Post-mortem examinations were made in 27 instances.

Thirteen deaths were due to heart disease, 13 to senile decay, and 9 to pneumonia.

Inquests have been held in the following cases: (1) a female patient died from G.P.I. accentuated by a fracture due to an accidental fall in the ward; (2) a female patient on trial died in the Royal Salop Infirmary from the effects of swallowing a corrosive poison self-administered before admission to this hospital; (3) a female patient committed suicide by drinking sulphuric acid whilst absent on trial.



There have been 2 fractures due to accidental falls and 1 to violence by another patient.

The influenza epidemic, which has spread throughout the country in recent months, invaded this hospital in January. Ninety-four patients and 14 members of the staff have been attacked, and 3 patients have died. At the present time 1 male nurse and 31 patients remain on the sick list.

One male patient has died from tuberculosis and 5 are reported to be suffering from this disease at present. There are no cases on the female side. In male ward 7 we found 2 actively tubercular cases being nursed in a dormitory with other patients, no attempt being made to isolate them. We hope use will be made of the verandah, which has recently been built, for the nursing of tubercular patients.

It is most satisfactory to note that there have been no cases of dysentery or enteric fever. We found a large number of patients who are still on dysentery cards and these were spread about in various wards on both sides of the hospital.

On questioning the nurses we found a good deal of difference of opinion as to the real significance of these cards, particularly as to whether the patients were meant to sit at separate tables for meals. We feel that definite rules should be laid down with regard to these cards and strictly adhered to.

We would also suggest that all bottles of disinfectant fluid issued to the wards should be labelled with directions as to their use.

The carriers of intestinal infection which were formerly known to exist are believed to have been cured by treatment with bacterial phage.

One female patient is suffering from measles and is segregated in the isolation hospital.

There exists in the hospital a deficiency of space, calculated upon the prescribed allowance, for 57 men and 54 women by day and for 10 women by night; the night space allowance for men according to the present arrangement of beds allows accommodation for 43 additional patients. We make no comment upon these figures involved as they are with the question of contemplated additional accommodation.

The number of patients upon the statutory books at the date upon which our visit commenced was 922. Two men and 1 woman were out upon long leave or trial. Of those in residence 10 men and 9 women were voluntary, and 2 women were temporary patients. During 1936 159 patients were admitted of whom 20 (11 men and 9 women) were voluntary, and 8 (3 men and 5 women) were temporary patients. It would appear that the relieving officers and those who are responsible for the initial steps in the treatment and disposal of mental patients in this county are not yet fully alive to the facilities afforded by the Mental Treatment Act, 1930, whereby certification may, in suitable cases, be avoided. We understand that there is a possibility that an out-patient centre may shortly be opened in this area. This would undoubtedly result in fuller use being made of such facilities.

Private patients in residence numbered 84, including 29 of the ex-service class. The weekly maintenance charge for home patients is 16s. 11d. and for private patients 22s. 2d. and 24s. 8d. The average weekly maintenance cost was last ascertained as 15s. 11.6d.

Seclusion has been employed in the case of 4 female patients for a total of 6 hours.

We have, we believe, seen all the patients in residence and have spoken to many. The good relationship existing between them and the staff clearly arises from the consideration and the care which they receive. Fifty-six men and 6 women enjoy parole beyond the estate, and 36 men and 36 women within the grounds.

Dr. Hughes has to assist him Dr. R. Osborn Smyth as his deputy, and Dr. E. F. J. Dunlop.



SOMERSET AND BATH MENTAL HOSPITALS.—1. WELLS.

29th October, 1937.

The annual visit on behalf of our Board for 1937 was paid by us on the 28th and 29th October.

In the course of this visit and as previously arranged, we gave special consideration to the proposal put forward earlier in the year to erect a verandah-dormitory on the women's side which, by being carried on piers, would form an adjunct laterally (to the east) to No. 6 first floor nursing ward, which is the female admission and sick ward. From the first the project presented difficulties, the result, it was realized, of all the nursing wards on both sides being upstairs and of the impossibility found of using instead any of the ground-floor wards for this purpose. Though the proposal was not without objection and doubt was entertained whether, in the result, the gain would be held to have justified the expenditure, yet, as some much needed additional nursing facilities perhaps might be secured by this structure, it was felt best that it should be examined on the spot and that at the same time the possibility of there being any alternative method of meeting the needs should be explored; and that this could be done probably more effectively in the course of a visit during which all parts of the hospital would be seen.

It was found, however, that, before the effects of the proposal could be grasped, the taking of some levels was requisite; and, further, that the position was one of more than ordinary difficulty, requiring careful consideration.

The result of our examination on the site and of subsequent consideration is to convince us that some other way must be found to meet the need in question. Apart from our experience that first-floor structures of this kind, with the necessity to protect them by a grille, are never fully satisfactory, and apart from the fear, we are sure only too well grounded, that this verandah-dormitory would obstruct the view from No. 7 ward, there are the facts that its repetition on the male side would be impossible and that on neither side could it provide a number of important facilities for which there is serious need.

Our tour of the institution, carried out in the manner indicated, brought home to us forcibly how great is the cumulative effect of these deficiencies and how seriously handicapped the hospital must be in attempting to receive and to treat, as is its duty, all forms of mental disorder and to encourage patients to come voluntarily in the earliest stages of their illness. For the assistance of the Committee we propose to summarize the deficiencies as we see them and, without going into detail, to outline suggestions as to how best they can be met. They may sound formidable, but, while they certainly are ground for concern, we recognize that they are the outcome of the hospital's age, (it is within a decade of being a century old), and of the fact that for the long period of rather more than 40 years—that is, ever since the opening of the sister hospital at Cotford—there has been no need (subject to a reservation to which we allude later) to erect buildings for the accommodation of more patients. Had there been that need, doubtless the opportunity would have been taken to make good the much needed medical facilities, many of which, it is only fair to note, themselves have come to the front only within the latter part of that period. The deficiencies to which we desire to call attention may be summarized under heads:—

1. (a) The absence of proper accommodation and facilities to meet modern needs, even upon quite modest standards, for the reception and treatment of recent cases, whose number and demands, with the full development of the Mental Treatment Act, ought still to increase. This absence can be understood best by a perusal of the relevant paragraphs in our Board's "Suggestions relating to the arrangement and construction of Mental Hospitals," coupled perhaps with a visit to some building erected to meet these needs, and an inspection of the wards at Wells into which newly admitted patients are received, including a perambulation, such as we made, of the route which a



newly arrived patient has to take to get to the admission ward and an inquiry, too, as to the variation which, should the case happen to be a stretcher one, has to be made in this route, especially on the women's side. It will be realized, we feel sure, that many of such patients may never have left home for treatment before and may be, apart from their mental disorder, full of natural apprehension as to where they are going, a condition which demands that first impressions shall be as favourable and attractive as practicable.

(b) Assuming an intention to make good this deficiency, the means, of course, should include accommodation which, while simple, should be suitable as to position and size (that is, not too large), so that convalescing patients can go to it instead of to one of the existing wards, practically all of which are on the large size. Thus, on the men's side the six wards which, at the time of our visit, contained patients in numbers which varied between 29 and 79, contained an average of 60 in each; and, on the women's side, where the sizes of the eight units varied between 22 and as many as 105 patients, their average was 56.

2. Similar absence of a ground-floor space on each side which can be made available and suitable as a sick-ward: a ward, that is, properly arranged for the nursing of bodily rather than mental conditions (though the two of course cannot be considered entirely separately) and comparable to a ward in a general hospital. In a modern mental hospital, it is usual to find something between 40 and 50 per cent. of the total accommodation arranged in ground-floor wards: that is in wards whose night-space as well as day-space is all on the ground-floor. Under such conditions it is easy to make entirely adequate arrangements for the nursing of the sick; and, in addition, to find thoroughly suitable accommodation for the infirm and for epileptics. In the older mental hospitals we are accustomed to find considerable restrictions in these facilities; but here it would seem that on neither side is there a single ground-floor ward complete in itself. Indeed, and apart from this entire absence of ground-floor wards, it is true to say that, with the exception of the two detached Hillside units for women, at night there are at most three wards, one on the men's side and two on the women's side, from which patients do not have to use dormitories shared by other patients: an arrangement, again common enough in the older hospitals, but which, owing to its prevalence here, must make classification very difficult.

3. It has to be noted, too, that with respect to those dormitories to which patients have to be collected from various wards, three of them, two for men containing between them about 70 beds (with patients from Wards 1, 2, 3 and 4) and one for women with 45 beds, are what are known as the attics. This use of roof space is, we find, an old story, details of which are unnecessary here. We may observe, however, that it was not contemplated when the hospital was opened; that the attic dormitories appear to have been formed out of the roof space in about the year 1868; that, though improvements have been made to them from time to time (e.g. between 1898 and 1904, their warming, plastering of walls and substitution of stone for wooden staircases) they never have been looked upon with favour; and, speaking for ourselves, we regard them with so much concern as well as disfavour that so long as their use is unavoidable, we think that besides the provision of a liberal supply of emergency fire-extinguishers, there should be a member of the nursing staff on continuous duty at night in them.

4. There are other facilities for which, in order to meet modern requirements there is a real need; but, as they are in the nature of details of medical equipment and we know would not be overlooked while considering such major matters as we have mentioned, we need not enumerate here. Two of them, however, we feel we must mention; namely, the unsatisfactory position and amenities of the existing Dental Room, where we gather that at present only extractions and scalings are done: and the fact that any necessary surgical operations are performed in the Dispensary. That such operations may happen at present to be few we think should not be regarded as signifying the absence of a real need for a suitable room in which to perform them.



We have been favoured with a very full and detailed list of the improvements and additions which have been completed since the last visit by Commissioners and of the numerous other matters which are in hand or about to be undertaken. Without attempting any complete enumeration of them, mention may be made of outside painting, one-fifth of which has been completed as part of a five-yearly programme; a complete overhaul of the farm buildings and new hot water supply to them; a new fruit and onion store; provision of two hot plates and four fans in the kitchen which, incidentally, we thought looking now very nice, as also is the newly tiled butcher's shop; installation of a new 20 h.p. engine in the laundry and the fitting of a locally designed safety lock to the hydro-extractors; some improvements to the visiting-room and the fitting up near-by of a lecture-room for the nurses, but its position unfortunately makes it rather dark; the re-decoration of the day-room of F.6 and parts of F.9; and several improvements and renewals in the sanitary annexes; the provision of another calorifier in F.9; and the fitting of a shampoo basin in the female general bath-room—all of which add materially to the comfort of the patients. This last named item must be a boon and, if it is possible to fit up the adjoining room as a hair-dressing saloon, as Dr. McGarvey hopes, its utility and its effect upon the patients will be much enhanced.

Among works about to be put in hand are further re-decorations and new sanitary fittings and improvements in several wards on both sides, especially a re-arrangement of these matters in M.6, including, we hope, the gradual extension of hot water to the lavatories and the carrying up of staff W.C. partitions with the substitution of ordinary doors for the existing dwarf ones; new hard-wood floors to certain single-rooms and to the dormitory of F.5—undoubtedly wise and much preferable to the covering of some of these rooms with rubber; and the re-decoration of M. and F. No. 1 Attics and their staircases. With respect to these sleeping places, whilst of course they must be kept sanitary and weather proof, we suggest that, otherwise, a minimum of re-decoration should be incurred in them. It is of interest to note that the Isolation Hospital is to be arranged as a decontamination station.

Two works in progress of major importance are—(a) the new heating installation, by roof radiant panels and modern type of radiators, includes new chimney stack and boiler and extension to the pump room; its approximate cost is £16,000. (b) The Nurses' Home, with quarters for 71 members of the women nurses which it is hoped will be ready for occupation about Easter. When the staff rooms in the wards which will then be set free are vacant, we trust that, in allotting new use for them, first place will be given to providing each female ward with a clinical room, and with adequate store-rooms and any other domestic facilities that at present may be wanting. Whilst recognizing that the men's side may have to do without some of these amenities for a while, we hope that something can be done to improve the storage requirements in M.3; we noticed some of the difficulties during the preparation there of bread-and-butter for tea.

From what we have said in relation to the programme of works either in hand or contemplated, and especially having regard to the commitments which the nurses' home and heating scheme involve, it is obvious that there is vigorous intention to put the institution throughout in good order. What we are inclined, however, to doubt is whether it is realized how quite inadequate the existing buildings are to meet not merely what is desirable but what is essential in the way of structural features if the hospital is to do its work for the mental health of the community it serves. Unfortunately the considerable thought we have given to the position convinces us that no adaptation of the existing wards can provide what is wanted for the reception and treatment of recent cases of mental disorder, and that nothing short of a building designed for the purpose will suffice. Naturally, this view may be the more unpalatable because at first sight it may seem that there is no numerical need for more beds. It leads us, however, to express a second doubt; namely, whether it is



realized, perhaps owing to long use, how unsuitable are the attic dormitories for mental hospital accommodation. If this view of them could be accepted as part of the Committee's programme, they then could proceed gradually to develop a scheme which would have as full justification for its provision of beds as for its modern treatment facilities.

At the time of our visit, the number of patients whose names were on the books was 808, 354 men and 454 women, all of whom were in residence. Based upon the present recognised number of beds, there were 10 vacancies on the male and 39 on the female side. Included in the number in residence, 35 were classed as private patients, of whom 10 were women and 22 were service or ex-service men; and 32 were out-county cases, of whom 20 were here under contract from Burntwood.

With respect to the use made of the Mental Treatment Act, 1930, during 1936, while only one man and five women were admitted that year as temporary patients, 21 per cent. of the direct admissions (28 per cent. of the women) were admitted upon their own voluntary application. Although we feel sure that this proportion some day will be much increased, yet in comparison with experience in other counties and having regard to the structural difficulties we have mentioned, it is distinctly creditable, and the efforts made to bring this about deserve every encouragement. Just about 50 per cent. of the direct admissions came directly from their own homes; of these 28 per cent. were voluntary patients.

In relation to the number (109) discharged and departed during 1936, we see that in only 17 cases was the practice of previous allowance out on trial adopted, which leads us to feel that the great value of this system perhaps is not realized as fully as is desirable. We see, too, with some surprise that in only one instance was any money allowance granted.

The weekly maintenance charge is 19s. 3d. a head, its cost as last ascertained being 18s. 10·5d. For private patients, the charge varies from 28s. to 42s. a week.

Some 30 men and 40 women have liberty to walk unattended beyond the ground; almost 9 per cent. of the total. Comparison between different mental hospitals as to the extent to which this privilege is given might be misleading, as local determining conditions vary widely; otherwise we might remark that the above proportion is creditably high. Our Board's mode of comparison is mainly between the extent to which parole within the grounds is recorded; unfortunately there are so many public rights of way across the grounds here that it hitherto has been difficult to extend parole of the grounds to patients other than to those who already have liberty to walk beyond the grounds. However, we are glad to see that as many as 23 per cent. are taken regularly for walks outside the grounds.

A talking cinema has been installed. We do not doubt that effort will succeed in getting over some acoustic difficulty that seems troublesome, and that this provision will prove a great boon. We see that some 28 per cent. of the patients attend the weekly entertainments. Only 21 per cent. attend divine service which is held every Sunday afternoon and alternate Sunday mornings. The church, despite its position, is quite a nice one; but it struck us as rather gloomy in appearance: however, we observe that it is in the list of places for re-decoration.

The death-rate during 1936 was 10·1 per cent. of the daily average number of patients resident—slightly more among the males than on the female side. This is rather high as compared with the average (6·8) for the country as a whole, and may be worth some attention on the part of the medical staff. Another point of medical interest is the high proportion (13·7 per cent.) of male epileptics here and the low proportion (5·4 per cent.) of female epileptics.

During the previous eleven months, that is since the last visit by Commissioners, there were 74 deaths. Post-mortem examinations were held in 62 per cent. of them. Heart disease and senile decay were the primary



causes in rather more than half of them. Four of the male and two of the female deaths were due to tuberculosis. In one case (a woman of 61) death was accelerated by an accidental fall in which the patient fractured her wrist; it was the subject of an inquest.

There were three other cases of fracture; one the result of a push by another patient, the other two being due to simple accidents. In one case diagnosis was assisted by X-ray examination. Each made a good recovery.

Incidence of infectious diseases, during the period under review, has been small, with the exception of a rather sharp outbreak among staff as well as patients of influenza in January and February, 1937. In the same period there were four cases of dysentery, all on the male side, but the number of cases of that disease during 1936 was considerable and some proved fatal. For the better segregation of such cases on the male side, Dr. McGarvey is considering the cutting off of part of No. 6 Ward.

When in the sewing-room one of us examined, and saw with much satisfaction, the new woven underwear for women—a great improvement on the old-fashioned garments still sometimes to be seen. This room might be made brighter with pictures, etc., and perhaps a trial might be made as to whether a wireless apparatus would be appreciated. Some 25 patients are employed here, which is below the number one ordinarily would expect; but then a good deal of sewing is done in the wards, including (which is not usual) the making of women's dresses. It is not given to everyone to be a good dressmaker and to have an eye for colour and style; and we are inclined to think that improvement in standard in these directions would be aided were more of the repairs relegated to the wards and the dressmaking done under the supervision of the sewing mistress with the help of selected patients, especially, when practicable, the patient who is going to wear the dress.

A drill class has been established for the men—about a dozen at a time—and we were able to witness it in progress. Without doubt it is a move in the right direction; and, when rubber shoes with shorts and singlets have been added to its equipment, its good effect upon the morale of its members will be enhanced. On the women's side country dancing classes take place regularly, and some 20 to 30 women patients engage in rug-making, fancy work, knitting and raffia work in the recreation hall. On the male side, some eight men are employed in a handicraft shop. Although these numbers and the range of crafts are small they form a useful nucleus for the spread of occupation therapy and its introduction to the wards, especially to those whose patients are of the difficult type and where the proportion of those unemployed is high.

Dinner on one of the days of our visit consisted of cold pork and potatoes, followed by apple tart; some home made pickles perhaps might have been served with the pork, but it was an excellent meal and was liked. All the bacon required here is home cured: its smoking might prove an interesting occupation to one or two of the patients. We thought that, in the wards where the better patients are, a trial might be made of making tea in pots with sugar and milk served separately. When in the bakehouse we learnt that no wholemeal is used: mixing it with white we know is not popular, but the sending of a wholemeal loaf up to every ward in lieu of white and leaving it to the free choice of the patients we have found is a potent way of encouraging the spread of the use of wholemeal bread.

Generally speaking the wards are comfortable and homelike. There was a good supply in them of flowers and plants and an adequate number of books on shelves and of daily newspapers. It seemed to us, however, that too many of the latter are clamped together on one reading desk, thereby restricting their distribution. Either more desks seemed wanted or some of the papers might be left loose on the table. We were glad to hear that, when the new heating system is in operation, a reasonable number of open fires will be maintained during cold weather.



## SOMERSET AND BATH MENTAL HOSPITALS.—2. COTFORD.

*February 9th, 1937.*

During the year which has elapsed since our colleagues visited this hospital last the work of modernization has gone steadily forward. The new central heating and hot water system is approaching completion. The electric wiring throughout the buildings has been renewed. It will shortly be possible, therefore, to carry out the much needed redecoration of the wards.

We were glad to find that good progress had been made in the building of the new nurses' home, the walls being up to a height of 8 or 10 feet. A new sewage disposal scheme has been passed by the visiting committee and work on it is shortly to begin.

In connection with the new hot water system we should like to suggest that at least one hot water tap should be placed in each ward wash-room. At present there is only a supply of cold water and sometimes a considerable distance has to be covered before hot water can be brought to the wash basins. This results, we gather, in nearly all patients washing in cold water.

Another matter which, we feel, should receive consideration is the modernization of the older sanitary spurs. In several, particularly on the male side, a strong and unpleasant odour persists. In one or two wards the sluice-rooms are particularly unpleasant and we consider that, whilst this could be improved by the proper use of disinfectants, the only satisfactory solution would be the installation of modern sluices. The out-of-date urinals have already been condemned and are to be removed. They should be replaced by ones of modern type.

In the course of our visit, which started yesterday, we believe we have seen all the patients in residence—764 in all. This number is made up of 339 men and 425 women. Eleven of each sex are voluntary patients and 1 man is on a temporary footing. Since the coming into force of the Mental Treatment Act, 1930, only 8 patients have been received in this hospital as temporary patients. It is a matter for regret that the benefits under the temporary treatment clause apparently are so little known in the area served by the hospital.

One patient of each sex is at present out on long leave or on trial. The total number of patients whose names are on the statutory books is therefore 766. Forty-five men (30 in the service or ex-service group) and 35 women rank as private patients. The weekly charge for these is from 26s. 3d. to 29s. 9d. The charge for rate-aided patients is 19s. 3d. per week, while the average cost of maintenance is 18s. 9·3d.

Overcrowding exists only on the female side and amounts to 28 by day and 16 by night.

Eighteen men and 13 women are given parole beyond the estate and 38 men and 6 women parole within the grounds.

We are satisfied that the patients here are well looked after and carefully nursed. We received few complaints except on the score of detention. One or 2 patients did criticize the food yesterday and we gathered this was so because they had had a soup dinner—never a popular dish in the menu. We inquired into the dietary and found it generally satisfactory. The dress of patients has in recent years been improved, particularly with regard to undergarments. A good deal of woven underwear has been introduced on the female side and now male patients are to have a woven singlet, samples of which we saw this morning. The suits of the male patients are not very satisfactory, except for those patients who wear their own clothing and for the ex-service group. All the men are dressed in the same dark material, which is somewhat poor in quality. These suits wash badly, but could be smartened up after washing if a steam trouser press were installed in the tailor's shop. A variety in the colours and materials used in the men's suits



would be an improvement. It might be possible to provide new admissions of the recoverable type and patients of good habits with suits of better quality.

The day shirts are rough dried, which gives the male patients an unkempt appearance, and the very old-fashioned ties worn with them do not improve matters.

Not all male patients are provided with nightshirts and in the male infirmary ward, with 70 patients, there is only a stock of 50 nightshirts. Pyjamas might well be provided for some of the better types.

We were glad to hear that efforts are shortly to be made to improve the female dresses. Some of those we saw were quite pleasing.

We made enquiries in the laundry arising out of our observations on the patients' clothing and we feel most hopeful that when the installation of modern machinery is complete it will be possible to iron the men's shirts. A new dryer has already been put in, 3 new washing machines and a new hydro extractor are to be added to the equipment, and we feel that the addition of a glad-iron would be most useful. Another matter we have discussed in connection with the laundry is the provision in each ward of individual towels. So far 3 wards are provided with face towels for each patient. In the others patients share roller towels.

We were glad to find that in the parole villa each patient is provided with a locker for his private treasures.

The verandahs on both sides of the hospital are unsatisfactory. They are draughty and in bad weather the rain comes in. That on the male side cannot be used in the winter.

Owing to the structural alterations which are going on it has not been possible to make any big strides in occupational therapy during the past year. Dr. Graham has, however, shown us a small block of 4 male nurses' bedrooms which he hopes to make into one room as a craft workshop for male patients. We hope that the second sewing-room on the female side, which is at present being redecorated, may be devoted to use as an occupation centre on the female side. It has the advantage of looking out on to a small and quiet garden. A good many occupations are at present being carried on in the wards on the female side and some rug making on the male.

The new matron, Miss Nicol, has started drill for female patients and we hope it will develop along the right lines. Rubber-soled shoes, tunics and knickers are very necessary.

The present staff of nurses consists of 9 men and 8 women of charge rank and 40 male and 51 female ordinary nurses. Six men and 8 women act as night nurses.

Forty-five men and 14 women are certificated or registered as mental nurses and 8 men and 5 women have passed the preliminary examination.

Since the visit paid by 2 of our colleagues on February 18th of last year there have been 65 deaths—30 males and 35 females. The mortality rate for 1936 was 8.4 per cent.

The general health of the patients has been satisfactory; there has been no serious outbreak of epidemic disease.

The principal causes of death have been heart disease 19, senile decay 13, pneumonia 8.

An inquest was held on a male patient who died from inflammation produced by a darning needle inserted by himself. Another patient has recovered from wounds of the throat self inflicted with a piece of glass, which he obtained by breaking a window. There have been 2 accidental fractures of bones caused by falls.

Recently a part of the dispensary has been divided off by a partition and fitted up as a pathological laboratory. Routine tests are made of the blood of all new admissions and special bacteriological examinations as an aid in the diagnosis of various diseases.



Five patients have died from tuberculosis, whilst at present 7 patients are reported to be suffering from this disease. The usual precautions are taken to prevent the spread of infection, but we should also like to suggest that the use of spittoons in the wards should be discouraged.

Although no epidemic or zymotic diseases have been notified since the last visit, we found a few male patients in bed suffering from pyrexia and symptoms simulating influenza, which is prevalent outside.

During April 1936 4 cases of diarrhoea were notified in ward 15, and earlier in the year there were 3 cases in ward 16 and 1 in ward 9, all on the female side. Bacteriological examinations were negative for dysentery, but the occurrence of these cases is a reminder of the precautions which should be taken to prevent infection. It is proposed that all patients who have had dysentery should be accommodated in one ward, and we consider that, until these patients have been proved to be non-infective, this arrangement should be adhered to. In addition, we should like to see a routine method for the issue of disinfectant fluids and printed instructions for the nursing staff in their use in the sanitary annexes and elsewhere. We consider that all male patients of defective habits should wear under-pants.

Out-patient clinics continue to be held at Taunton and Yeovil. At Taunton 1 session a month is devoted to child guidance and probation work.

Dr. Graham, the medical superintendent, has as his assistant medical officers Dr. F. H. Healey and Dr. R. M. A. Ormston.

#### STAFFORDSHIRE MENTAL HOSPITALS.—1. STAFFORD.

*December 15th, 1937.*

There are two outstanding matters to which we desire to refer upon concluding our 2 days' visit to this hospital. The first relates to the number of mental defectives (approximately 130), who are most inappropriately under care in a mental hospital, who occupy beds which might be far more profitably used for cases of mental illness, and for whose accommodation provision ought to be made elsewhere. There is no doubt, in our view, that the removal of these cases would not only afford considerable relief to the administrative staff, but would also enable the hospital better to fulfil its primary function—namely, the treatment of mental illness.

The second matter has been referred to by our colleagues on former occasions. Owing, doubtless, to the work which has been done by Dr. Shaw in connection with the out-patient clinics there has been a substantial increase in the number of voluntary patients admitted. During 1936 out of 247 direct admissions 51 were of this character, and during the current year the corresponding figures are 245 and 53 respectively. During 1936 there were 8 and during the current year 5 admissions upon a temporary basis. But we think that greater advantage might be taken of both these methods of avoiding certification in suitable cases if patients were more frequently admitted direct from their own homes to the admission hospital here, which is far better equipped and more appropriate for the reception of "observation" or recoverable cases than any public assistance institution or municipal hospital. If this were the general practice in all areas which are served by this hospital, the medical staff would be available for consultation as to the footing upon which the patient should enter. We hope that those who are responsible initially for the disposal of cases needing mental treatment will be encouraged to adopt this course, and we should add that in recommending it we do not lose sight of the fact that there is at present, in some quarters, a prejudice against entering a mental hospital which we think is unreasonable and would disappear with proper education of its advantages.

The names of 1,173 patients appear to-day upon the statutory books. One man and 4 women were absent upon long leave or trial, leaving in



residence 527 men and 641 women. All of these have, we believe, had the opportunity of addressing us if they so desired and many have done so. Both male and female patients were suitably dressed, and greater variety in the frocks of the latter is being achieved. We were interested to observe that patients' footwear is made in the workshops, every process being completed here. The dietary is a 3-weekly one, and is ample and varied.

Notwithstanding the old design of many of the day-rooms much has been done to brighten and to improve their appearance by the use of light coloured window curtains, comfortable chairs in brightly painted shades, and the use of flowers and plants. Re-decoration upon a large scale in the main buildings has contributed further to this end.

Since the last Commissioners' visit the general health of the patients has been very good, and, with the exception of a mild epidemic of influenza in January and February, when 84 patients and 5 of the staff were attacked, there has been no case of either epidemic or zymotic disease.

At the time of our visit there were 19 cases under treatment for tuberculosis who were being treated by up-to-date methods in open-air verandahs. The percentage of tubercular cases at this hospital is rather higher than the average in other mental hospitals in England and Wales.

The number of patients in bed was 81, or 6·8 per cent. This we considered very satisfactory, especially taking into consideration the large proportion of senile inmates. Those in bed showed evidence of careful medical and nursing attention.

During the period under review there were 139 deaths and in 72 cases post-mortem examinations were held. The principal causes of death were heart disease (39), senile decay (35), general paralysis (13), and cancer (2).

The mortality rate for the year 1936 was 7·6 per cent. (8·4 per cent. male and 7 per cent. female), which is slightly higher than 6·8 per cent. or the average for all mental hospitals in England and Wales.

Inquests have been held upon 3 patients, full particulars of which have been reported to our Board.

Serious casualties reported to us number 15 (5 male and 10 female). All were fractures with the exception of one dislocation, and one self-inflicted wound. In 7 cases the accidents were due to falls, 2 occurred during fits, and 5 during altercations with other patients.

Excellent work continues to be carried out in the laboratories, especially into the investigation of the histo-pathology of the various states of mental diseases, in addition to the usual routine examinations.

We were pleased to hear that arrangements have been made for a qualified dispenser to attend daily to relieve the medical staff of such duties.

The weekly maintenance charge for home patients is 23s. 4d., while for private patients it is 42s. 0d. There are 45 of the latter class including 43 service or ex-service patients. The average weekly maintenance cost was last ascertained to be 21s. 5½d.

Including those of charge rank the strength of the nursing staff is 103 men and 104 women of whom 13 men and 17 women perform night duty. We are pleased to observe that the numbers on night duty on both sides have been increased. Sixty-four men and 23 women are certificated or registered as mental nurses.

We are indebted to Dr. Shaw and his medical staff for valuable assistance in the course of our visit.

#### STAFFORDSHIRE MENTAL HOSPITALS.—2. BURNWOOD.

*July 30th, 1937.*

It gives us great pleasure to record the fact that, in February of this year, the new admission hospital and the 2 new convalescent villas were opened for the reception of patients. The admission hospital contains accommodation



for 36 patients on each side. It is equipped with an operating theatre and a dental room, both furnished with every modern facility, and provision has been made for X-ray, ultra violet and other ray treatments. Particular attention appears to have been paid to the selection of ward furniture and to the scheme of decoration, and these matters no doubt inspired the appreciation of their treatment and their surroundings which was expressed by the patients to whom we had occasion to speak.

Similar considerations apply to the male and female convalescent villas, both of which appear to be well designed and to occupy admirable sites. The only serious defect which we observed in these new buildings was the lack of adequate provision for storage room. If it is found impossible to erect additional buildings we suggest for the consideration of the Committee the conversion and adaptation for this purpose of one of the single rooms in each villa. We think also, that it would be desirable to furnish some means of storing the coal which is at present desposited and left outside these neat looking buildings. We were pleased to learn that in the hospital itself steps are being taken to avoid the effects upon the ceilings of each kitchen produced by the steam which escapes from the water boilers.

There are, in all 3 of the new buildings, several doors which would be used as secondary escapes in the event of fire. The provision of keys to be kept inside glass boxes might, we think, avoid possible accidents in the case of such an emergency.

The remodelling of the mortuary and the construction of the chapel which is attached have been excellently done, and will be deeply appreciated, we have no doubt, by those who have to visit them for the purpose of viewing deceased patients. The post-mortem room is spacious, well lighted and heated when necessary, and completely equipped.

In the main block we found the older wards well kept, well furnished and pleasantly decorated, especially upon the female side. Redecoration was being carried out in several parts of the building. Plate warmers and gas stoves have been fixed in female wards 5 and 8 and in the infirmary wards on each side. In the female infirmary provision is being made for more adequate lighting in the single rooms.

We cannot leave the subject of improvement without mentioning, as have Commissioners on previous occasions, the lack of any supply of running hot and cold water in the infirmary wards and in those wards in which numbers of patients are being nursed in bed. In the infirmary wards in particular we consider that the need for such provision is urgent. The necessity of transporting water in bowls over the distance which is at present necessary must create delay and difficulty, both from the medical and from the nursing point of view.

We paid some attention to the question of the disposal of soiled linen; this is carefully and efficiently dealt with. The laundry provides employment for 34 female and 2 male patients. A new double steam press has been installed and is used with great advantage to the appearance of the dresses of the female patients. We were particularly impressed with the whiteness of the linen after washing. The building has been adapted for the provision of a continuous drier which will shortly be installed.

Attached to the laundry is a sewing room in which much of the necessary mending and darning is done. This, together with the occupation room on the female side, provides employment for a large number of female patients. We were much impressed, in the occupation room, with the quality of the rug making, embroidery and other work which was shown to us.

A physical training class of approximately 40 male patients is taken weekly by a nurse with army experience in this work. On the female side about the same number of patients enjoy Morris dancing once or twice a week under the supervision of one of the staff. We hope that it will be found possible to afford similar opportunities to an increasing number of patients on both the male and



the female side. Much is already done to provide open-air games, when possible, for both sexes.

The general health of the patients, since the last visit, has been good. In December there was a mild epidemic of influenza which attacked 66 patients and 12 of the staff, and in January 39 patients and 18 of the staff suffered from the same complaint; since then there have been a few isolated cases only. Five patients died from this disease. It is interesting to note that, during the same period, there has not been a single case of dysentery or enteric fever, although there are 2 known carriers of the latter disease.

At our first visit there were 5 patients under treatment for tuberculosis, 4 being of the pulmonary type; there have been no recent deaths from this disease.

The patients in bed numbered 94 (38 male and 56 female) or 8·5 per cent. Many of these were in bed on account of physical disabilities. Full use of verandahs is made for the treatment of bed cases. All showed evidence of skilful medical treatment and kindly care and nursing attention.

There has been 1 inquest, particulars of which have been reported to our Board.

Four serious accidents have occurred, 3 involving fractures and 1 a sprain. Two were caused by the patient being pushed over by a fellow patient, and the remainder were due to accidental falls. The patients concerned were all over the age of fifty-six. The small number of accidents reflects much care and credit upon the nursing staff.

The mortality rate for 1936 was 6·73 per cent., which is just under the average of 6·8 per cent. for all mental hospitals in England and Wales.

Since the last visit there have been 76 deaths; in 52 of these cases post-mortem examinations were held. This number would have been much larger but for the fact that the post-mortem room was under repair from October, 1936, to February, 1937. The principal causes of death were arterio-sclerosis (16), pneumonia (10), heart disease (10), and cancer (4).

Excellent work continues to be done in the laboratory.

We discussed with the deputy medical superintendent the question of the storage of dangerous drugs in the poison cupboards in the ward and in the dispensary, so as to comply with the Poisons Rules, 1935.

There were upon the statutory books the names of 1,116 patients, in the proportion of 530 men to 586 women. Service and ex-service patients numbered 53. Three women were out upon long leave or trial, 1 of these being a temporary patient. Notwithstanding the provision of the additional accommodation which we refer to earlier, overcrowding exists on the male side to the extent of 110 patients by day and 65 by night, and on the female side to the extent of 109 patients by day and 13 by night.

The weekly maintenance charge for home patients is 21s. and for private patients 42s. For service and ex-service patients it is 24s. 9d. The average weekly maintenance cost was last ascertained to be 21s. 10·7d.

Forty-nine men enjoy parole beyond, and 62 men and 36 women within the estate. In view of the impracticability of granting parole beyond the estate to any considerable number of women we consider that the institution of a canteen or shop within the hospital would be greatly appreciated by these patients, apart from the other advantages which such facilities confer on the hospital generally. We think, too, that the provision of refreshments for patients' visitors, which is at present lacking, might be accomplished by this means.

Out-patient clinics continue to be held weekly by the Medical Superintendent with the assistance of his medical staff, at Walsall, West Bromwich and Burton-on-Trent. It is no doubt due to his work in this connection that the number of direct admissions upon a voluntary basis in 1936 was 27 out of a total of 209, and during 1937, to the present date, has amounted to 28 out of a total of 138. We share with him the regret which he expresses



in his annual report for 1936 that the use made of the provisions for temporary treatment is so lamentably small in this county.

The nursing staff consists of 10 men and 11 women of charge, and 63 men and 75 women of ordinary rank. In addition 7 men and 9 women are available for night duty. Fifty-seven men and 34 women are certificated or registered as mental nurses.

The Medical Superintendent was, unfortunately, absent at the time of our visit. He has to assist him Dr. Taylor as deputy medical superintendent, and Drs. Mackenzie and Kirwan as assistant medical officers, to all of whom we are indebted for valuable assistance during the past two days.

#### STAFFORDSHIRE MENTAL HOSPITALS.—3. CHEDDLETON.

*November 17th, 1937.*

There are to-day upon the books of this mental hospital the names of 1,292 patients. Forty-two women are boarded out under section 26 of the Lunacy Act, 1890, and 124 men and 18 women elsewhere under reception contracts. Two men and 1 woman are absent upon trial, leaving in residence 582 men and 665 women. These figures include approximately 300 mental defectives, over 100 of whom are infants or children (including 1 child of 9 months old). The majority of these defectives are detained here under the provisions of the Lunacy Act, although a very few cases are still here upon a voluntary footing.

We mentioned these facts because, in view of the problem of overcrowding which has for some time engaged the attention of the Visiting Committee, it seems to us unfortunate that other provision cannot be made for these patients. The extent to which they occupy what is, for mental hospital purposes, valuable space, is made clear by a calculation of the deficiency which exists in the prescribed space allowance for the 1,247 patients in residence. Such a calculation shows upon the male side an excess of patients to the extent of 72 by day and 29 by night, whilst upon the female side the corresponding excess is 150 by day and 110 by night.

It is true, of course, that some relief in this respect will be afforded when patients can be admitted to the new admission hospital containing 80 beds, and to the 2 new convalescent villas containing 20 beds each. But we agree with a statement made by the Medical Superintendent in his last annual report to the effect that an increase in admissions under the provisions of the Mental Treatment Act, 1930, is to be anticipated, and we hope that no possible means of relieving the present congestion will be overlooked.

We are satisfied that there are in the hospital a number of patients who could properly be boarded out under the provisions of section 57 of the Lunacy Act, provided that suitable homes could be found for them. We refer elsewhere to a female patient who appears to us to be an example of these cases. This section of the Act, however, cannot be properly utilized without assistance from outside the hospital in the matters of interviewing relatives or friends, explaining to them the procedure and their responsibilities and reporting upon the suitability or otherwise of their homes for a patient accustomed to institutional care. Moreover, it is essential that patients who are so absent from the hospital should be visited frequently by a person experienced in such cases, and capable of giving any necessary assistance or advice.

These external duties are obviously impossible tasks for the staff of the hospital itself, and in any event fall properly within the province of a trained social worker. We think that the expense incurred by the appointment of an officer of this description attached to this hospital would be amply repaid, if only by the possibilities it would afford of releasing patients from overcrowded wards for whom other and more costly accommodation might eventually become necessary.



Of 307 direct admissions during 1936, 82 were upon a voluntary and 47 were upon a temporary basis. Since January 1st, 1937, the corresponding figures are 74 and 20 respectively, out of 318 admissions. We are glad to observe the use that is being made of the provisions of the Mental Treatment Act. During 1936, 137 patients were discharged from, or left, the hospital following treatment without having undergone certification.

Sixty-six men and 41 women are usually granted parole beyond the grounds, and 23 men and 7 women within them. Three male and 3 female wards are open to the corridors and to the ward gardens.

The average weekly maintenance cost, as last ascertained, was 22s. 7·4d. The weekly maintenance charge per head is, for home patients, 23s. 4d., and for private patients (of whom there are 23, in addition to 49 service or ex-service patients) 42s.

We saw, we believe, all the patients in residence, and spoke to many. We have been greatly impressed by the high standard of the care and treatment which they receive, particularly in the matter of their occupation, to which we refer later. There is an excellently equipped central library, which is under the supervision of the Church of England Chaplain. The canteen, which is managed by a committee of members of the nursing staff, is of great benefit to the patients owing to its wide range of stock, and its utility will increase if the proposed system of remuneration for workers by means of tokens exchangeable for value is adopted. Ample provision is made for recreation, and we were pleased to hear that a football team composed entirely of patients is playing regularly against teams from other hospitals and institutions.

Divine service is held weekly, and we are told that all suitable patients have opportunities of attending that of their particular church.

The dietary is substantial, and is varied upon a monthly basis, but we trust that the present distinction of diet between workers and non-workers, as applied in the provision of a non-workers diet in the refractory wards, will be discontinued. It appears to us to be an undesirable method of treating patients who refuse to work on account of their mental state, although with the progress which occupation therapy is making in this hospital, no doubt the number of such patients will gradually decrease.

The clothing of the female patients is satisfactory, and in many cases garments are marked with the name of the individual patient. We saw, in the sewing room, some dresses of good material and attractive design, which had been made to measure. Upon the male side the effects of the new steam press were noticeable, and the clothing generally was neat and tidy. In two of the male wards the patients change into tweeds from their unsightly corduroy trousers at the end of the day's work.

A supply of hot water to patients' wash basins throughout the hospital has been provided, and we were particularly pleased to observe that such a supply was available also in every dormitory in which sick patients were being nursed in bed.

The day-rooms, without exception, are clean, pleasant, and brightly decorated with pictures, and have an ample supply of flowers. Notwithstanding the exceptionally low temperature which prevailed out of doors, they were adequately heated and ventilated. Redecoration is taking place, and eventually every day-room and dormitory will receive attention in this respect.

We observed that in those wards in which patients remained for dinner no proper facilities exist for heating plates, which, in at least one ward, were cold with resulting disadvantage to the service of a hot meal. We understand that this matter is receiving consideration.

The hot meat slicer which has been installed in the kitchen since the last visit has, we are told, proved most satisfactory.

The buildings at present in course of erection are the admission hospital, the two new convalescent villas, and a new nurses' home to accommodate



26 of the nursing staff. The new occupation therapy pavilion is almost complete, except for the matter of equipment.

We are satisfied that the treatment of mental and physical diseases at this hospital is of a high order. As part of this treatment we include the occupational classes which we saw in the majority of the wards. In few hospitals have we found so many patients really interested, and we noted with particular satisfaction the progress that is being made with the more difficult types of patients in wards such as F.23. In M.10, and at the large occupational class in F.18, we saw advanced work which gives scope to the individual taste and skill of patients. Further facilities will be available when the new occupation building is completed, but we hope that the excellent work in the wards will continue.

In addition to the various handicrafts there is provision for playing games, such as table tennis, skittles, and billiards in the wards, whilst there is a good supply of daily and evening papers. We were informed that the patients are keenly interested in the inter-ward football matches.

The death rate for the year 1936 was 5·7 per cent. Since the last visit 80 patients have died—48 males and 32 females. Sixty-nine post-mortem examinations were made. Twelve patients died from pneumonia, and 10 from senile decay.

An inquest was held in the case of a male patient who died from heart disease accelerated by shock from the fracture of three ribs. The cause of the injury was not discovered. An inquest was also held in the case of a female patient whose death was accelerated by a fall.

Eleven patients sustained more or less serious injuries without fatal results. These were all fractures, in 8 cases due to accidental falls, in 2 to violence by other patients, and in 1 to a cause unknown. X-ray examinations were made in 8 of these cases.

An epidemic of influenza occurred in the first quarter of this year. Two hundred and thirty-eight patients were attacked, and there were 4 fatal cases.

There have been 5 cases of dysentery with 1 death. It is satisfactory to be able to report that no fresh cases have occurred during the past 9 months. One case of enteric fever has been notified, and at the present time there is a mild epidemic of chicken-pox in the children's ward.

Complete examinations are made of all new patients by laboratory tests, and a considerable amount of work in the investigation of diseases has been carried out.

Considerable use is made of the services of the consultant staff. Their work will be facilitated when the admission hospital is opened.

A large number of cases are seen by the medical officers of the hospital at the clinic held at the North Staffordshire Royal Infirmary. In this connection we have no doubt that valuable assistance could be rendered by a social worker.

Dr. W. D. Wilkins has to assist him Dr. J. H. Malloy as deputy medical superintendent, and Drs. D. Henderson and J. W. Wishart as assistant medical officers. They have been of great assistance to us during our visit, which has been a most interesting one.

#### EAST AND WEST SUFFOLK MENTAL HOSPITAL.

*February 15th and 16th, 1937.*

To-day we have completed our visit to this hospital and believe we have seen all the 1,073 patients in residence, to whom we have given opportunities to make any statements if they so desired. No private interviews were requested. An atmosphere of calm and contentment prevailed throughout the hospital and the relationship between patients and staff is good.



During the year 1936, according to the statistics placed before us, there were :—

	Voluntary.		Temporary.		Certified.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Direct admissions ... ..	19	17	2	6	56	87	77	110	187
Departed or discharged (excluding transfers)... ..	9	16	—	3	37	49	46	68	114
Of whom had recovered ...	1	1	—	3	9	10	10	14	24
Allowed out on long leave or trial ... ..	—	—	—	1	18	30	18	31	49

From the above figures it is gratifying to note that the advantages to be gained from both sections 1 and 5 of the Mental Treatment Act, 1930, are more widely appreciated in so much as 36 voluntary patients and 8 temporary patients have been admitted compared with the year 1935, when there were 29 voluntary and 2 temporary patients admitted.

To-day there are the names of 1,163 patients on the statutory books, consisting of 524 men and 639 women. Of these patients 19 men and 16 women are voluntary, 1 and 4 respectively temporary, and 504 and 619 under certificate.

There are 22 patients boarded out in single care and 68 patients are boarded out at the Kedington Public Assistance Institution. These latter patients, Dr. Brooks Keith informs us, will in the near future be certified under the Mental Deficiency Acts and so be removed from the hospital books.

The medical superintendent holds an out-patient clinic alternatively, once a week, at Bury St. Edmund's or Lowestoft; during 1936 51 patients attended and the number of attendances totalled 160. The services of the voluntary social worker have been of great value both in connection with these clinics and in visiting the homes in which 22 patients are boarded out in single care. Forty patients are boarded out under reception contract at the Canterbury Mental Hospital.

Overcrowding, which has been referred to in previous entries, is still on the increase; the deficiency of accommodation for the year 1936, compared with that of 1935, is as follows :—

						1936.		1935.	
						M.	F.	M.	F.
By day ... ..	...	...	...	...	...	7	89	0	78
By night ... ..	...	...	...	...	...	39	60	27	49

It is contemplated to erect many new buildings, and the stage of sketch plans has been reached. These buildings are to consist of an admission hospital, 2 convalescent villas and a block to house some 50 chronic patients. When these are completed it will allow of better classification and tend to lessen overcrowding. In addition to this extension of the hospital, both a house for the deputy medical superintendent and also quarters for 2 assistant medical officers and the matron are to be provided.

Steps have been taken to modernize the patients' clothing and we saw some pleasing frocks made in the workroom where some patients go twice a year to have their dresses made to measure. The underclothes for many of the women unfortunately are still made of a material associated with that of an old-fashioned type. We would like to see a more generous supply of linen in the wards, especially in M 2, 3 and 13.

Some men are issued trousers with sewn-in linings instead of pants: from the point of view of warmth and hygiene we suggest that pants be provided, which should be more satisfactory in every way.

A steam clothes press, in the laundry, enables the patients' clothes to be returned to the wards in good shape. It was of interest to learn that 600 coat-hangers have been made in the occupation centre and that they are in the near future to be issued to all wards. This should improve the appearance and preserve the shape of dresses, suits and overcoats.



Among the patients' indoor amusements are weekly "talkie" cinema performances and dances in the recreation hall. There is a good supply of weekly periodicals in the wards, but the supply of daily newspapers is rather meagre; some wards have only 1 newspaper provided while others at the most have only 2. The library centre has been in existence barely 2 years, but while there is a good supply of books in most wards we feel that these should be changed more frequently than every second month.

We discussed with Dr. Brooks Keith the fact that the hospital provides no wards with wireless: while appreciating that there may be disadvantages to wireless in certain wards there are many in which it would be appreciated by the patients.

Football is played by the men and there is also a bowls club which, amongst its fixtures, has away matches.

Twelve men enjoy parole beyond the estate and 30 men and 16 women parole within but not beyond the estate. Four wards on each side are administered on the open-door principle to the ward gardens and 1 of these, a ward for men, is open in addition to the hospital grounds.

Two wards, M 4 and F 4, are used as centres for handicraft and occupational treatment. Overcrowding, as in other parts of the hospital, was in evidence here. It is hoped a larger attendance of the nursing staff will be made at 3 centres and so enable them to supervise and extend this beneficial form of treatment in their own respective wards. A few lockers—and many are needed in the hospital—are made at the men's centre, where some 38 patients are occupied in various forms of handicraft.

Many patients receive tokens for work done and they are able to realize these in the hospital canteen, which is well stocked with popular requisites.

A class of physical drill is held once a week for the women patients, but as yet no classes for the men. If classes were held daily for both men and women it would be most beneficial in conjunction with occupational treatment.

The weekly maintenance charge per head for the home patients is 20s. 5d. and for the private patients 35s. The average weekly maintenance cost, as last ascertained, is £1 0s. 6.53d.

The wards on both sides of the hospital are well kept and are mostly bright and comfortable, some particularly so. They have a good supply of flowers or plants, and many attractive lampshades made for the Xmas festivities are still retained in use and are decorative throughout the wards generally.

Dr. Brooks Keith informed us that overcrowding had prevented the redecoration of the wards on the women's side: we hope, however, that it will be found possible to redecorate at least some of the single rooms. As an alternative to redecoration in the 2 admission wards, F 7 and F 10, we suggested a larger supply of coloured cushions, etc., and the material on the ward screens to be of a lighter colour.

The ward gardens are tidy and pleasing. Some of the paths needing repairs, we understand, are to be done this spring: it would add to the patients' comforts if, at the same time, some of the older benches were replaced by something more comfortable and others repaired and repainted.

Among several matters discussed with the medical superintendent were the conversion of ward M 1's boot-room into a cloak-room so as to increase the space for hanging clothes and also the provision of a basin fitted with hot and cold water both in the sanitary annexe of ward F 3 and in that of the isolation villa.

A further matter discussed was the ventilation of ward 13, which would be more easily facilitated if the lower half of the windows looking over the glass roof could be made to open: wire netting could be used to prevent anything from falling on the glass below.

In male ward 3 sanitary annexe the concrete flooring, particularly round the pans, is in need of attention and probably needs complete replacement.



We consider that hand basins with hot and cold water would be an asset in wards where there are patients in bed requiring considerable nursing attention. These wards are, on the male side, numbers 10, 11, 12 and 13; on the female side 7, 10, 11, 12 and 13.

The new dental cabinets (a product of the occupation centre) are neat and well made. We are sure that the system of numbering each of the patients' toilet belongings is, in itself, of value in habit training and will ensure the nurses' frequent attention to their ablution arrangements.

We think that the supply of face towels in all the wards might be increased to permit of 2 towels per person each week. We were told that the laundry would be capable of meeting the additional demands made upon it.

A new disinfecter has just been installed adjacent to the laundry. We discussed the arrangement made for the reception of articles for the disinfecter and we were agreed that any infected material would be better admitted to the disinfecter room direct from the outside. For this reason the alteration of the window at the end of the room to permit of any articles being easily received would be desirable.

We were glad to know that the necessary improvements to the sterilizing plant at the shippons will be carried out this year and that other improvements connected with the dairy section will be effected as recommended in the commissioners' last entry. We are disappointed that the development of the poultry section of farming is so limited.

The clerk and steward explained to us the system by which the weekly menus are arranged.

We noted the improvement effected in one section of the kitchen by tiling of the walls and were glad to know that in the adjoining vegetable section necessary improvements will also be carried out in the current year.

The review of the health statistics since the last visit shows that influenza affected 69 patients, of whom 55 were women, and 10 members of the nursing staff were similarly affected. Erysipelas—3 cases—diphtheria and measles—1 case of each—occurred on the female side only. The hospital has been free from other infectious conditions. The tuberculosis incidence rate for the year 1936 was 7·9 per 1,000 and the death rate in ratio to the same number was 4·4; these compare with the mean rates for all mental hospitals of 6·3 and 4·6 respectively.

The death rate for the same year was 5·98 per cent. Deaths since the last visit numbered 68, of whom 38 were women. Post-mortem examinations were carried out on 46 of these—a percentage of 67·6.

Of the causes of death, heart disease (15 men and 15 women) and senile decay (4 men and 5 women) were the commonest. Apart from 3 deaths from pneumonia, respiratory diseases as a cause of death were nil and it is interesting to hear that respiratory infections generally have a low incidence rate in this hospital. Deaths from general paralysis numbered 6, 4 of which were of male patients.

One inquest was held on a female patient who died of hypostatic congestion of the lungs due to confinement in bed for treatment of fractured femur.

Of the more serious casualties 3 were fractures of the lower limbs, all accidental, and in 1 case fracture of the ribs was attributed to the violence of another patient.

The nursing staff number 140 in all—72 male and 68 female nurses. Of these 8 and 14 respectively are classified as night staff and of the remainder 11 and 12 are ranked as charge nurses. The ratio of male staff to male patients in residence is therefore:—1 to 7·6 by day and 1 to 61 by night: the corresponding figures on the female side are 1 to 10·8 by day and 1 to 41·7 by night. Thirty-nine male and 30 female nurses are certificated—that is, 54 per cent. and 44 per cent. respectively.

Dr. Brooks Keith has the assistance of Dr. Paton as deputy superintendent and of Dr. Crawford and Dr. Weir as assistant medical officers, by whom we were accompanied throughout our visit.



## SURREY COUNTY MENTAL HOSPITALS.—1. BROOKWOOD.

*May 21st, 1937.*

Further progress has been made since the last visit with the modernization of the administrative block of this hospital and the kitchen and stores departments are now most conveniently planned and provide excellent facilities in every way. The remodelling of this portion of the hospital has also enabled the provision of spacious visiting rooms for each sex and accommodation for a central library. Other improvements recently completed include repairs to all the fire-escape stairways and the provision of an occupational therapy pavilion for women. Alterations in progress at the mortuary are also practically finished.

The reception hospital and the villas present many of the best features of a modern hospital and when the new sick hospital and tuberculosis block—plans of which have now been approved—have been erected the Committee will have good cause to congratulate themselves upon the facilities for modern treatment afforded here. Even then, however, the wards at the main block will continue to suffer from the disadvantages arising from their original construction, not the least of which is the lack of self-contained wards, involving a great deal of “sleeping out” in upstairs dormitories and much movement of patients at the hour of going to bed. It has been found possible recently at one or two of the older hospitals in this country to rearrange the wards so as to make them self contained and, while expressing no opinion as to the possibilities here, we wonder whether the Committee would be prepared in due course to give consideration to such a remodelling scheme. We are sure that our Board would be ready to afford the Committee every assistance in their power to such an end.

During our visit, which has occupied the whole of the past 2 days, we have made a complete tour of the hospital and have endeavoured to give every patient an opportunity of speaking to us. Generally, the patients appeared to be contented and appreciative of the provision made for them and we are sure that the needs of individuals receive much consideration at the hands of Dr. Lowry, whose intimate knowledge of his patients impressed us considerably.

There are at present on the books of the hospital the names of 1,570 patients, in the proportion of 635 men to 935 women. Four of the total are at the moment on trial, leaving 634 men and 932 women in residence, of whom 38 (19 of each sex) are voluntary patients. We are sorry to record that there is no patient at present under temporary treatment here. Private patients number 38 (28 men and 10 women), 27 men are shewn as service or ex-service patients. Nineteen women continue to be boarded out on contract. There are vacant beds at the moment for 28 men and 8 women, but Dr. Lowry fears that this margin on the female side may prove insufficient and that it will be found necessary to make temporary use of the new female visiting-rooms as a dormitory pending the completion of the new sick hospital.

We had some discussion with Dr. Lowry on the subject of the paucity of temporary patients and drew his attention to the fact that the trend in the admissions of patients in this category appeared, unlike that in most other hospitals, to be downward. No doubt the lack of a really active out-patient centre, conducted by a member of the hospital staff, tends to lessen to some extent the facilities for co-operation in this respect between the medical staff of the hospital and the outside practitioners of the district, but we think that an added reason is to be found in Dr. Lowry's objection to either he or any member of his medical staff being approved for the purpose of signing recommendations for temporary treatment under Section 5 (3) of the Mental Treatment Act, 1930.

The percentage of voluntary admissions in 1936 remained about stationary as compared with former years, being approximately 17 per cent. of the direct admissions for the year as against a corresponding figure of 18.1 per cent. in 1935.



The wards were in good order and comfortably furnished. We are glad to see a number of lockers for patients have been added in male ward 9 and that opportunity is being taken as occasion affords to improve the cloak-room accommodation in some of the wards. We note also that the supply of daily newspapers to the wards has been increased to 50 and that wireless is now available throughout the hospital, the installations at the reception hospital and the villas being separate from the main installation, so that patients warded in them can select their programmes at will. Other items of interest in connection with the wards are the provision of feather pillows for every bed and the proposed purchase of new insulated trolleys and containers for the transport of food. Efficient plate-warming apparatus already exists in every ward and under the new arrangements the facilities for serving the meals hot should be excellent.

Mention has already been made of the provision of new accommodation for the central library, and we were very much pleased to find that reorganization of this department is now proceeding under the direction of Mrs. Lowry. There is an adequate supply of readable books and the ward book-shelves are replenished fortnightly. The introduction of a card-index system might be of advantage.

We paid particular attention to the question of the occupational treatment of the patients and were glad to find that progress on sound lines continues to be made. The new occupation centre provides accommodation for about 50 women and the occupation officer (Miss Owen) in charge of it seemed to have a very good understanding of the technique of the treatment from the therapeutic point of view. We were also pleased to see that good use is made of the shops for the occupation of patients. As an example of this we may state that 12 patients are employed in the bootmakers' department and 9 in the tailors'. Dr. Lowry also told us that the application of occupational treatment to the women had enabled an increased number of patients to be found available for work in the laundry and other utility departments on the women's side—a very satisfactory result. Rewards, in the shape of tokens which can be exchanged for goods at the canteen, are provided for all working patients on a graded system which appears to work quite satisfactorily. The provision of an additional occupation centre for each sex is contemplated both buildings being visualized as of semi-permanent construction.

Physical exercises have been restarted for the men, and Dr. Lowry assured us that similar activities for the women would be resumed at no distant date. Folk-dancing classes are held for the women, the occupation officer being an expert in this excellent recreation. So far as we could gather, little interest in active participation in games of cricket and football is taken by the patients, and we were told that they preferred watching the staff team perform to playing themselves. We hope, nevertheless, that every encouragement will be given to the younger patients to take part in active outdoor games since we believe that their socializing value is considerable, quite apart from the enjoyment to be derived by the patient from the actual game.

Parole of the grounds is enjoyed by 122 men and 73 women (approximately 12 per cent. of the patients resident) and suitable patients are accorded the privilege of parole beyond the estate on application in respect of each particular occasion. Three of the male villas and 2 female villas are open to the grounds and 2 wards for each sex are open to the ward gardens.

At our visit to the reception hospital we were pleased to note that care was taken to reserve its accommodation for recent cases and that as far as possible similar practice obtained in the smaller of the villas for each sex.

The diet is well varied, and is run on a 4-weekly scheme. Two vegetables are always supplied at dinner and milk puddings do not figure too frequently. Fruit in season is issued. There is a currant or seed cake for tea on an average twice a week and, on other days, jam is issued. The drinking milk issued to patients all comes from a tuberculin tested herd of cows. We received no



complaints about the food and several patients spoke appreciatively to us of its quality.

We paid a visit to the home farm, where the byres are of modern construction and well ventilated. Care has evidently been taken in issuing instructions and providing gowns, hooded pails, etc., to ensure a supply of clean milk, but a wash-basin with hot and cold water, formerly available in suitable position, has apparently been recently removed; reinstatement of it seems eminently desirable. At the farm villa we would suggest that, as an additional precaution against fire, the 3 doors adjacent to the top of the stairs which are really "smoke screen doors," should have instructions painted on them requiring them to be closed at night.

In such a large hospital we were surprised to find that there was no Social Worker. From our experience in other hospitals we find that the employment of such an officer is of great assistance to the medical staff in obtaining particulars of patients' histories which relatives are either disinclined to supply or which can only be obtained by actual visitation of the patient's home, and which may be of the greatest use in connection with the treatment of the case. Another useful service for which a Social Worker may be employed is that of the after-care. The Committee may care to consider this suggestion.

The general health of the patients since the last visit has been good. In the earlier months of this year there was an epidemic of mild influenza which attacked 237 patients, but only three died from this complaint. The staff also suffered from this epidemic, 48 being attacked.

We were pleased to note that there had not been a single case of either dysentery or enteric fever for some years in this hospital.

At our visit there were 12 cases of tuberculosis (7 male and 5 female) who were receiving treatment under modern open-air methods. Good use is being made of the X-ray apparatus for diagnostic purposes in connection with this disease.

The mortality rate for the year ending December 31st, 1936, was 7·2 per cent. (6·7 males and 7·5 females), which compares favourably with that of 6·8 per cent. for all mental hospitals in England and Wales.

There have been 93 deaths during the 9 months which have elapsed since the last visit, but in only 29 cases was a post-mortem examination conducted.

The principal causes of death were:—

Pneumonia (32), heart disease (21), senile decay (9), cancer (9) and general paralysis (6). It is notable that of the 93 deaths, 55 were over the age of 60, of whom 18 were over 70 and 4 over 80.

During the same period 2 inquests were held, the particulars in each case being reported to our Board. One was that of a woman who was an alcoholic, with a diseased liver, who died from luminal poisoning administered prior to her admission, the verdict being "death by misadventure," while the other case does not appear worthy of special mention.

There have been 13 casualties during the period under review, 4 men and 9 women, all fractures except one dislocation of the shoulder, caused by the attack of another patient. In 2 cases the patients sustained fractures by falls out of bed while under treatment in single rooms. Six were due to slipping on the floors, though the latter in our opinion are not so highly polished as to be considered dangerous; 7 of the patients who sustained injuries were over the age of 60, and 2 were over 80. The small number of accidents in this large hospital—occurring to only 0·8 per cent. of patients resident—is a tribute to the care and attention which the patients receive from the nursing staff.

The number of patients in bed at the time of our visit was 184 (50 males and 134 females) or 11·7 per cent. of the patients resident. The great majority of them were on account of physical conditions—mainly senility. All showed evidence of careful medical attention and nursing care.

We discussed with Dr. Lowry the desirability of improving the bathing and sanitary accommodation in the female infirmary (ward 9) and gathered



that this question, together with that of installing fitted wash-basins in some of the other nursing dormitories, had been deferred pending a decision as to the future use of the accommodation in question upon the sick hospital becoming available—a very reasonable view of the matter.

We were told that on the female side there was a shortage of 8 nurses which must add considerably to the work of the other nurses. In this district we understand there is a great difficulty in getting suitable young women to take up nursing as a career and for that reason 23 married women are at present on the nursing staff at this hospital. The conversion of the now disused kitchen in F.10 block into a lecture room for nurses is contemplated.

The post of Chaplain, which had been vacant for some time, has recently been filled by the appointment of the Reverend G. G. Edmonds.

Dr. Lowry has the assistance of Dr. Leonard Barber (formerly at Fishponds Mental Hospital, Bristol) as Deputy Medical Superintendent, and of Drs. M. Johnston and N. Langdon-Down as assistant medical officers. The remaining 2 posts on the medical staff are occupied by temporary medical officers.

#### SURREY MENTAL HOSPITALS.—2. NETHERNE.

*June 19th, 1937.*

The inspection of this large hospital has occupied us for the whole of the past 2 days. During our tour we have been greatly struck with the contentment of the patients: indeed rarely, at a visit, have we found patients so free from complaint of any sort.

The wards generally were nicely furnished and comfortable and much interest is evidently taken in keeping an ample supply of flowers in them. The interest also that some of the female nurses, assisted by their patients, take in the gardens adjoining their wards is most commendable, and the result is a pleasure to see.

The grounds are very fine and are kept in excellent order. The buildings were in good repair and we were interested in the redecoration of some of the wards (male 6 and 8 and female 7) in which the ceilings had been painted with white enamel which brightens them up in a manner impossible with whitewash. Among the works completed we were pleased to note the hot water service recently installed in the female wards, an addition which is much appreciated by the patients. On the male side a similar installation is in progress. Amongst the works under construction is a new cold store for meat, bacon, butter, milk and cooked foods.

There are on the statutory books 1,512 patients, 569 males and 943 females, of whom 83 (43 males and 40 females) are voluntary, 4 (2 males and 2 females) temporary, and 1,425 (524 males and 901 females) certified. Of the total, 130 (65 males and 65 females) including 38 service and ex-service patients, are private patients, while there are 24 (11 males and 13 females) out-county cases. At the time of our visit 10 (3 males and 7 females) were on trial, leaving in residence 1,502 (566 males and 936 females).

The use made of the provisions of the Mental Treatment Act, 1930, in this area continues encouraging. Of direct admissions in 1936 there was a slight increase on the previous year in the number admitted as voluntary patients, viz. 24 per cent. as compared with 22 per cent., though the percentage of patients admitted on a temporary basis decreased from 10 per cent. to 4 per cent.

During 1936, 108 patients are reported as having been discharged recovered, viz. 16 voluntary, 12 temporary and 80 certified or 26.8 per cent.

According to the returns furnished to us there are 21 vacancies on both sides by day but overcrowding at night to the extent of 53 of each sex.

Occupational classes are held in both divisions and distinct progress is apparently being made. This form of treatment is, we feel sure, progressing on the right lines and still better results will be possible when the occupation rooms, plans of which are at present before our Board, are built. Most of



the occupation work done by the men and women was of a high standard but it is the employment of the patients rather than the standard of their work that we consider so important. We saw several patients of the troublesome type who have made distinct mental improvement since they have become interested in occupational work. Handcraft work is also carried out in many of the wards.

Since last visit physical training for both sexes has been further developed. On the male side there is a class held daily in the gymnasium which, besides drill, includes vaulting over the horse and boxing; the latter, though a somewhat novel exercise in mental hospitals is, we were assured, proving very popular. This class is provided with proper gymnasium costumes.

Active encouragement is given to outdoor games amongst the male patients. There are 2 cricket teams with at least weekly matches, and, in addition, teams composed entirely of patients play matches with other hospitals. Football is popular and patients may be found, even in the summer, kicking a football about in the early evenings.

On the female side physical training classes have been started and we saw a class numbering 16, of the dementia praecox type, at drill which they were evidently thoroughly enjoying. Costumes for such exercises will be provided very shortly, and in due course it is intended to introduce musical accompaniment.

The weekly char-a-banc outings for workers to Worthing are continued. On Wednesdays shopping parties go out in the hospital bus, and on Mondays private patients go for motor drives. These outings are much looked forward to, and enjoyed by the patients.

Parole beyond the estate is granted to no patient owing to the fact that a much used public road runs through the grounds. Within the estate, however, 24 men and 25 females have this privilege. Two male and 2 female villas are run on the open-door principle and are open to the grounds, while 2 male and 3 female villas and the male and female infirmary wards are all open to the ward gardens, thus allowing the patients a reasonable amount of liberty.

The proportion of patients on suicidal caution cards—3·7 per cent.—is higher than the average we are accustomed to find in the majority of mental hospitals and, as a result of enquiries made, we doubt whether the necessity of restricting the use of these cards to actively suicidal patients, and not employing them for cases who require supervision for other reasons, is sufficiently recognized by some of the medical officers concerned.

The majority of the suggestions made in the last report have, we were pleased to see, been carried out, and we noted with satisfaction that steps have been taken to modernise the underclothing of both sexes. Some of the material for the women's dresses appeared very attractive and we heard with pleasure that, as far as possible, a choice of colour for the dress is allowed to the patient. All the patients were neatly dressed and well shod.

There is a large library in this hospital and a reasonable number of books are available in the wards. The nursing staff have a library of their own. The number of daily papers issued has been increased and the supply now seems adequate.

We saw 2 good dinner meals served and received no complaints about the food; in fact, several patients spoke with appreciation of it. The dietary, which is on a 4-weekly scale, is well varied, but we suggest that a regular issue of fresh fruit—oranges, apples or bananas—would be a pleasant change as well as a beneficial one to the patients. In other hospitals this addition has been found possible and to be to the advantage of the patients.

The canteen appears to be well found and patients, except in special cases, are paid by tokens which they can expend there. We were told that the demand for fresh fruit, especially oranges, was considerable.

The weekly maintenance rate per head is 21s. 7d. and for private patients varies from 31s. 6d. to 63s. according to the accommodation provided. The average weekly maintenance cost as last ascertained was 21s. 6·93d.



We discussed the question of the employment of a trained social worker with the medical superintendent. Such an officer, by visiting the homes of patients, can obtain information concerning environmental factors which may have contributed to the breakdown of the patient, and also frequently obtain the co-operation of the relatives in the patients' treatment. The information and help thus obtained often prove most helpful to the medical staff in the treatment of the patients and we find that the services of a social worker are highly valued in hospitals where they have been tested.

The general health of the patients since the last visit has been very good. There is no illness to report except a mild epidemic of influenza which attacked 101 patients (39 males and 62 females) and 23 of the staff (13 males and 10 females), and 1 case each of scarlet fever and erysipelas. We were pleased to note that there has been an entire absence of enteric fever and dysentery for some years.

At our visit there were 7 cases of tuberculosis under treatment in open-air verandahs under ideal conditions. Patients in bed numbered 126 (53 males and 73 females) or approximately 8 per cent. Very few of them were there for mental reasons and all showed evidence of careful medical attention, kindly care and nursing. There are many senile cases in this large hospital and we noted with satisfaction that the great majority of these are got up, at all events, for part of the day. If they are unable to get up, their beds are moved out under the verandahs.

The mortality rate for the year 1936 was 7·5 per cent. which is rather higher than that of 6·8 per cent. which is the average for all mental hospitals in England and Wales.

Since the last visit there have been 86 deaths, and in 52 cases post mortem examinations were held.

The principal causes of death were pneumonia 18, heart disease 13, senile decay 15, and cancer 5.

During the same period inquests were held in 4 cases, in 2 of which the injury occurred prior to admission. All the particulars regarding these cases have been fully reported to our Board.

From statistics supplied to us we note that there have been 15 casualties (2 males and 13 females) all fractures. In 3 cases the accidents were due to struggles with other patients, 1 occurred during a fit, and all the others were accidental in character. Six were due to falls in the wards, but in no case does it appear that the floors were too highly polished. Patients now have the heels of their shoes fitted with rubber pads, which is stated to prevent them slipping on the ward floors. Several patients told us that they found them very comfortable to wear and that they lessened the tendency to slip when walking. We were, however, glad to notice that the stone steps on some of the staircases were being roughened, and to be informed that this would be done wherever necessary. We noticed that the step leading from the vegetable store to the yard is much worn and consider it dangerous in its present state.

The laundry was in excellent order and the arrangements for dealing with the infected and soiled linen thorough, but we would like to suggest that the bins for such linen be disinfected by means of a live steam jet. The laundry was very hot at our visit—though it was rather a cold day—and we discussed with the medical superintendent several means to improve this condition so as to add to the comfort of the laundry workers.

The patients are allowed to wear their own clothes, and the washing of their private underlinen is done in the hospital laundry.

The hair carding machine is a most useful addition, but we would suggest that the provision of a perforated tray, on which the carded hair would drop, would be a more satisfactory arrangement than allowing it to fall on a sheet on the floor, as this would reduce the amount of dust which at present must be caught up in the hair when it is collected.

We discussed the necessary precautions that have now to be taken with poisons with the medical superintendent.



The nursing staff numbers 253 (107 males and 146 females) of whom 37 are charge nurses (14 male and 23 female) and 216 ordinary nurses (93 male and 123 female). Night nurses number 34 (14 male and 20 female), and of this number 10 male and 14 female are actually on duty each night. There are 112 certificated or registered mental nurses, while 41 (20 male and 21 female) have passed the preliminary examination only. We were informed that there was a shortage of staff on the female side of 14, and from what we have been told in other mental hospitals there seems to be considerable difficulty at the present time in keeping the female staff of nurses up to the required number. It is interesting to note that the matron, deputy matron and sister tutor are all doubly qualified.

The medical superintendent conducts an out-patient clinic at Kingston, which was attended last year by 29 men and 40 women, and also one at the hospital which was attended by 6 patients.

The medical superintendent accompanied us during our tour of the hospital on both days and we have to thank him for his helpful assistance. He is assisted by Dr. J. H. Ewen, as deputy medical superintendent, and 4 medical officers.

#### EAST SUSSEX COUNTY MENTAL HOSPITAL.

*May 7th, 1937.*

We have to-day completed the first visit which either of us has paid to this hospital, and our experience has been both pleasant and interesting.

Few hospitals can more charmingly situated, and at this time of the year the grounds and gardens are particularly beautiful: we have never seen better kept and more attractive ward gardens, while both in the gardens and in the wards, flowers are to be found in profusion.

The light airy dormitories and day-rooms are in exceptionally good order throughout the hospital, and everywhere one finds that cheerful, homely atmosphere which should always characterize an institution of this kind.

Each ward is equipped with a hot-water plate warmer, there is a good supply of lockers for patients' possessions (a good type of sheet metal locker is provided in some wards, and it is hoped to equip the remainder in a similar manner as funds permit) and small tables and chairs in the dining-rooms serve to make these apartments both comfortable and attractive.

An excellent type of metal and rubber fitting for hanging up hand-towels is in use in a large number of wards, and we were particularly glad to learn that each patient receives a clean towel daily.

There are to-day 1,294 patients (495 M. and 799 F.) resident in the hospital: 40 males and 77 females are voluntary patients, and the rest are detained under certificate.

During 1936, direct admissions totalled 365 (130 M. and 235 F.), including 127 voluntary (45 M. and 82 F.) and 5 female temporary patients. During the same period 284 patients (91 M. and 193 F.) departed or were discharged, this number including 107 (35 M. and 72 F.) voluntary patients. Sixty-eight patients (23 M. and 45 F.) were allowed out on long leave or trial, and 20 (10 of either sex) were granted money allowances. One hundred and thirty-nine patients (46 M. and 93 F.) died during 1936; of these 10 (3 M. and 7 F.) were voluntary and 2 females were temporary patients.

We are glad to know that the out-patient clinics at Hastings, Eastbourne, Hove and Lewes have now been taken over by Dr. Benjamin Reid, the Medical Superintendent, and his medical staff, and we have no doubt that this fact, combined with the proposal to convert the Homestead into a new admission unit for the quieter type of female voluntary patient, will result in an even higher proportion of voluntary admissions than is at present the case. The complete absence of temporary patients from the hospital is disappointing, but an arrangement which has been made whereby Dr. Reid or a member of



his medical staff will in future be available for consultation in the case of patients admitted to Hastings Institution may, we hope, lead to an increase in the number of temporary admissions, with a corresponding fall in the number of patients who are received in the hospital under certificate.

In the course of our visit we have been struck by the quiet and contented demeanour of the patients, and by the almost entire absence of complaints. We have seldom if ever received fewer appeals for discharge than we have received during our visit here, and we have no doubt that this happy state of affairs is due in the main to the general good tone prevailing throughout the hospital.

Patients' self-respect is much increased by the good clothing provided, and by the care which is devoted to such an important matter as hairdressing, both for men and women. So far as the female patients are concerned, their individual tastes in clothing receive consideration, and for those who do not possess suitable clothing of their own, hospital clothing of modern and attractive design and of varied pattern and colour is provided. Patients' hair is attended to by a professional hairdresser, either in the up-to-date and well-equipped hairdressing saloon, or in the wards in the case of patients whose physical or mental condition makes attendance at the saloon impossible. The hairdresser also practices chiropody, a hospital service which is not often found but one which we feel sure is both beneficial and much appreciated by patients.

The men's clothing is very good, and we were glad to see that tweed sports jackets, flannel trousers and woollen pullovers are being worn by a large proportion of the patients, and in particular by the younger men.

Recreation and amusements are abundantly provided, and this year it is hoped to extend the privilege of a week's holiday at Seaford, formerly accorded to selected women patients only, to a party from the male side. There is an entertainment of one kind or another on 4 or 5 nights each week, while out of doors male patients play cricket, football, lawn tennis and bowls, and the women lawn tennis, netball and stoolball. A new hard tennis court and bowling green, both for the use of patients, have recently been completed, and they are undoubtedly most valuable additions to the amenities of this well-conducted hospital.

Reference was made in the report of our colleagues who visited last year to the excellent canteen, but we should like to endorse the approval which they then expressed, and to add that we were much pleased to observe the varied selection of fresh fruit offered for sale—fresh pears, oranges, bananas and tomatoes, and the wide range of cosmetics and other toilet preparations. All working patients receive tokens weekly, which can be exchanged at the canteen for such articles as they may desire. The cash value of the token given varies between 3d. and 1s. 6d. weekly.

The dietary is exceptionally good, in that the breakfasts are on a generous scale, and that there is evidence at every meal of effort made to avoid monotony. Dr. Reid is convinced of the importance of diet in relation to the prevention of hospital dysentery, and accordingly the matter receives a great deal of attention.

The kitchen is well equipped and extremely well kept, and we were interested to see that the boilers and steamers, as well as the sink unit, are of stainless steel, which much enhances the appearance of this department, and at the same time makes cleaning a far less laborious process.

The laundry is in good order, and indeed the only criticism which here suggests itself is that the general lay-out of the buildings results in some waste of space, and that accordingly some difficulty would be experienced in providing the necessary room for additional finishing machinery, now required to deal satisfactorily with the work. Between 27,000 and 28,000 pieces are dealt with weekly, and of this total 4,000 to 5,000 pieces are received from outside the hospital.

Occupations are organized on an extremely sound basis in this hospital, and comparatively few patients are entirely unoccupied. There is an



occupations unit at Park House, the admission unit, where all the patients living there who are not confined to bed are employed, and here even many of those in bed busy themselves with light and suitable work of different kinds.

In the main hospital classes are held morning and afternoon in the recreation hall. At the time of our visit the morning class comprised 101 women and 127 men, and the afternoon class, which does not include patients who have attended in the morning, 180 women and about 90 men. The times of attendance of the individual patients is changed from time to time to avoid any monotony.

All the nursing staff has been, or before long will have been, trained in handicraft work, and we were much impressed by the large range of handicrafts practised.

A most important feature of this department is the great attention which is paid to providing for the needs of the more degraded and introverted types of patients, and Dr. Reid and his medical and nursing staffs deserve warm congratulations for the really excellent work which they are doing in this connection. We should not omit to add that patients who spend the morning at the occupation class take exercise out of doors in the afternoon, and vice versa, and that the beautiful ward gardens, to which we have referred earlier in this report, are in the main tended and maintained by the patients.

Thirty men and 35 women enjoy parole beyond the estate, and 118 men and 160 women have parole within the extensive grounds, while 1 male and 4 female villas are open to the grounds. It is interesting to observe that with the very high standard of the patients' dietary, their clothing, and the many unusual amenities provided, the weekly maintenance charge amounts only to the moderate figure of 21s. 7d. a week, a fact which is creditable indeed to those responsible for the administration of the hospital.

The mortality rate per cent. for 1936 was the high one of 10.4, this being attributable, we understand, to the death of a number of old patients who had already survived longer than might have been expected, the mortality in the previous year having been exceptionally low. Since the last visit, 6 months ago, there have been 72 deaths, post-mortem examinations having been carried out in 50 cases, just under 70 per cent. There was 1 death only from general paralysis of the insane; 1 patient is now under malarial treatment for this disorder. There has been no death from influenza (which attacked 134 patients) nor from enteric fever or dysentery (of which there have been no cases) during the period under review.

The chief causes of death have been cardio-vascular disease and pneumonia. Inquests were held on 2 patients, one of whom had sustained an accidental injury before admission, and the other, who already suffered from a progressive form of paralysis, had collapsed and fallen while in the hospital. Tuberculosis was responsible for 6 deaths. Five tubercular female patients (there are no males) are under treatment at present. Laboratory tests in this connection include the examination of fæces as well as of sputum. We do, however, feel strongly that the provision of an X-ray apparatus for chest examination, as well as for use in cases of suspected injury to bone, is an important matter. The time is past when a hospital without this facility can be considered to be properly equipped, and we earnestly hope that this hospital will be provided with a modern X-ray apparatus in the near future.

Infectious diseases since the last visit have not been serious in incidence; they include chicken-pox, 5 cases, erysipelas 2, measles 1, and scarlet fever 3 cases. The scarlet fever cases were among the mentally defective children in Woodside, where Schick and Dick testing and immunization have been carried out.

We heard of the laboratory work from Dr. Shera, the visiting pathologist. Over 4,000 examinations were carried out during 1936. It was interesting to find the laboratory work so practical and so clearly related to hospital needs. Useful routine tests of many kinds are carried out, and milk supply and



disinfection are checked from time to time in the laboratory, while several modern methods, such as the use of new culture media for tubercle bacilli, and of the sedimentation rate estimation on newly admitted patients are proving their clinical value.

Research on renal efficiency is also going on. It is evident that the organization of pathological work here, in association with work for other hospitals, has the effect of maintaining a high standard. We feel, however, that the laboratory accommodation has become much too small and cramped for the work which is being done, and we hope that before long the Committee will feel able to provide better and larger accommodation.

Casualties since the last visit include 6 fractures (1 M. and 5 F.), and 1 dislocation of shoulder (F.). The cause of the dislocation, and of one of the fractures could not be ascertained; the latter occurred in a patient who appears to suffer from calcium defect. The remaining fractures, except one which followed a push from a patient, were sustained in accidental falls.

The "elimination treatment" was referred to in the last report. This consists of rest in bed, with restriction of diet to oranges and glucose, with the administration of insulin and small repeated doses of calomel. Many cases, particularly those suffering from confusion, improve during this treatment.

Dr. Reid accompanied us throughout our visit, and we should like to thank him for his assistance, and for the arrangements which he made for our comfort.

#### WEST SUSSEX COUNTY MENTAL HOSPITAL.

*August 5th, 1937.*

We have to-day completed our visit to this hospital; we have been given every assistance by Dr. C. G. Ainsworth, the Medical Superintendent, by Dr. S. Nix, the Deputy Medical Superintendent, and by the other member of the medical staff, and for this we should like to express our thanks.

To-day, 1,075 patients (436 M. and 639 F.) are resident in the hospital, this total including 128 voluntary patients (63 M. and 65 F.) and 6 women who are temporary patients. While there is an excess of accommodation on the female side for 60 patients by night and 6 by day, on the male side there is a deficiency for 76 by day and 46 by night. In these circumstances we are glad to learn that the question of boarding out suitable patients under Sections 26 or 57 of the Lunacy Act, 1890, is at present receiving attention by the Committee.

During 1936 direct admissions, which included 91 voluntary (43 M. and 48 F.) and 19 temporary patients (7 M. and 12 F.), totalled 251 (103 M. and 148 F.), while departures and discharges numbered 158 (59 M. and 99 F.) inclusive of 74 voluntary (31 M. and 43 F.) and 10 temporary patients (all women); 118 patients (57 M. and 61 F.) were allowed out on long leave or trial, and in 5 cases money allowances were granted.

During the same period, 87 patients (36 M. and 51 F.) died.

In the course of our visit, we saw, we believe, all the patients in residence, and with all who desired to speak to us, we had conversation. We found them quiet and orderly, neatly dressed and generally apparently happy and contented. Throughout the hospital there is a comfortable and friendly atmosphere which is most pleasing and there is a pervading cheerfulness to which the light ward decorations and the exceptionally well-kept and colourful ward gardens no doubt greatly contribute.

The dormitories and day-rooms are well-kept and in some of the latter modern and comfortable woven wicker chairs have now been provided.

We were glad to see that the arrangements for storing patients' day clothes at night are so good. The garments are placed on hangers which are accommodated in store rooms off the dormitory.

There appears to be a sufficient supply of towels, but we hope that it may be found possible for patients to have individual towels in future. We have



mentioned this matter to Dr. Ainsworth who has promised to see what can be done.

In some wards it seems that scrubbing brushes are used indiscriminately for use on ward tables and for lavatory floors, an unhygienic practice which the clear marking of brushes intended to be used in the sanitary annexes would do much to prevent.

In many wards, excellent electric plate-warmers have been installed, and we are glad to know that other wards will be similarly equipped in due course. In this connection we are glad also to hear that the replanning of the main kitchen serving room is in contemplation, as we feel that this may help to prevent food which should be hot leaving the kitchen cold, as we found to be the case yesterday in one instance.

The kitchen itself, now in the charge of a recently appointed lady kitchen superintendent, is in very good order. The old kitchen ranges are shortly to be replaced by two Esse cookers, and a second mixer is to be purchased.

While we feel that there is still a good deal of scope for organized occupation for patients of the more regressed type, we were yesterday very pleased to see in the female occupation room 36 women, otherwise without any occupation, engaged in various kinds of handicraft work. There is here a good variety of work, ranging from the very simplest, such as wool teasing to leather work, painting and fancy needlework of a high order.

On the male side physical training classes are regularly held, while it is hoped to start a class on similar lines before long for the women. Male patients are encouraged to take up hobbies and a really excellent beginning has been made in the organisation of ward games. There are now a number of patients' cricket teams, who play inter-ward matches, there is inter-ward clock golf and before long it is hoped to be able to arrange whist competitions on a similar basis.

We were most interested to learn that the possibility of a mixed "Arts and Crafts" class for men and women is being considered and we hope that such an arrangement will before long be made.

The patients' dietary is good and well varied; this hospital is one of the few where all the meat is still home-killed and what we saw yesterday was of particularly good quality, as indeed were the potatoes and green vegetables all grown on the estate.

The average weekly maintenance cost is 22s. 11·8d., while the charge for private patients ranges between 25s. 1d. and £4 4s. a week.

Since the visit of our colleagues last year, 6 new farm cottages have been erected and, as was then recommended, a protecting rail has been placed round the iron-heating stove in the laundry. The electrical re-wiring, followed by the re-decoration, of the wards still proceeds, while among additions in contemplation is the provision of a new X-ray room and plant.

Patients' clothing is generally very good, and that supplied for the use of the women is attractive and modern in type. We hope however that the question of supplying suitable patients with individual sets of underclothing may be favourably considered by those responsible and that the present disfiguring and destructive method of marking clothing and linen with an inked stamp may soon be replaced by thread marking. We feel also that in the case of some of the younger male patients, the provision of tweed coats and grey flannel trousers instead of tweed suits would be greatly appreciated.

Since the last visit, there have been 10 serious but non-fatal casualties, 8 of them involving bone fractures. Two of the latter cases were due to action on the part of other patients, 1 to the patient's own action, and the others were accidental in origin. Of the other 2 cases, 1 involved a cut right eye, due to a fall, and in the other, the patient's slipping in a gallery resulted in a dislocation of the left elbow.

The mortality rate for 1936 was 8·2 per cent., which is rather high by comparison with that of 6·8 for all hospitals over the same period. Since the last visit there have been 79 deaths, post-mortem examinations have been



carried out in 50 cases, i.e., in about 63 per cent. of the whole. One female and 2 male patients died of tuberculosis during this period; the number of patients now under treatment for this disorder is 8—5 females and 3 males.

Four male patients died of general paralysis. Inquests were held upon 2 patients, both of whom had sustained accidental falls.

The majority of the deaths were due to respiratory and cardio-vascular disorders, and call for no special comment; 2 deaths, and probably 3, were, however, due to enteric fever.

Infection by *B. typhosus*, which was responsible, was first diagnosed in ward E.2, on the female side, in October of last year. Since then there have been in all 9 cases, the last having occurred in July this year.

The diagnosis in the third fatal case was not suggested during life, but was made as the result of a pathological report on post-mortem material.

The original cause of the outbreak has not been identified with certainty, but it may have been infection from either of 2 patients, one of whom developed enteric fever after a period of absence on leave, the other, who had an indeterminate pyrexial illness of some weeks duration not long after admission, having since been found to be a carrier.

The cases have been confined to female patients, and have occurred in wards E.2, F, B, and A.1, the mode of spread from ward to ward not being clearly traceable. Various factors however facilitate such spread. One garden, with its sanitary accommodation, is shared by 288 patients from different wards, including some of those wards in which cases have occurred. In the course of recent investigations, carriers who have suffered from enteric in past years and who have recently been moved from one ward to another have been discovered.

It is, however, hoped that the epidemic is now checked; there have been no fresh cases for 3 weeks; all 5 patients now requiring nursing during convalescence or, because they having had the infection, remain debilitated, are segregated in ward A.1, while 8 able-bodied carriers are segregated in one half of the sanatorium.

Steps which might have to be taken should the infection give further trouble include the provision of laboratory space and the appointment of a resident pathologist, so that extensive search for carriers might be persistently carried out without the necessity of having such pathological work done at the West Sussex Hospital, as is at present the case, and arrangements for the appropriate treatment of carriers of different mental types.

The patients now accommodated in the sanatorium do not at present appear to suffer hardship, but they are not very far from the mentally defective children who occupy the other half of the same building and this arrangement could not be suitably continued if there were a larger number of patients.

The sanatorium garden, occupied at different ends by these two groups of patients, was infested with flies yesterday.

The presence of the 14 mental defectives of both sexes, of ages from 6 to 19, in the sanatorium, in addition to those scattered about the hospital wards is most undesirable; they occupy valuable and much needed space in the hospital, and although much care is given to their health and welfare, they would be more suitably accommodated in mental deficiency institutions. Most of them are of the low grade imbecile type and some are unable to walk.

We discussed with Dr. Ainsworth the question of the administration of sedative and hypnotic drugs. This is obviously a matter which receives careful consideration and the records in this respect are clearly kept, but we hope that it will be possible to do something to diminish the number of hypnotic draughts, usually paraldehyde, given at night.

Overcrowding, particularly in the male wards, is thought to make for disturbance at night, but even where overcrowding exists, it is unusual for as many as 30 to 40 female and 50 male patients to receive hypnotic draughts.



The male nursing staff consists of 12 charge and 61 ordinary nurses, of whom 10 are employed in night nursing, 54 of the total being certificated or registered as mental nurses, while the female nursing staff comprises 14 charge and 80 ordinary nurses, 19 being employed on night duty, while 34 are certificated or registered as mental nurses.

There is a shortage of female nurses to the number of 8, and difficulty is being experienced in finding suitable candidates for the work. We saw, in the course of our visit, the comfortable and well-equipped Nurses' Home.

#### WARWICKSHIRE AND COVENTRY MENTAL HOSPITAL.

*December 9th, 1937.*

As the years pass and the Borough of Coventry continues to grow in size, overcrowding at this hospital becomes an increasingly serious problem. According to the statistical returns made to us there is now a deficiency of day space for 35 women and of night space for 248 patients in all (men 97—women 151). As the whole question of the accommodational needs of the areas involved and of the possibilities in regard to re-organisation of the existing accommodation is now under discussion between the Visiting Committee and our Board we do not propose to comment further upon these matters.

There are to-day on the statutory books the names of 1,418 patients, including 22 patients on trial and 16 of each sex boarded out, under Section 26 of the Lunacy Act, 1890, at Alcester Public Assistance Institution, leaving a total in residence of 1,364. Private patients number 112 (M. 47—F. 65), 37 of them being shown in the service or ex-service class, and there are 98 voluntary and 28 temporary patients at present in residence.

Direct admissions during 1936 numbered 379, of whom, according to information supplied to us, almost exactly two-thirds were received direct from their own homes and the remaining one-third through public assistance institutions. The figures of direct admissions for the present year to date indicate a further very considerable increase at 434—a high admission rate for a hospital of this size. It is interesting to note that the number of patients shown as “departed or discharged recovered” during the present year is 267, that is to say, over 61 per cent. as contrasted with the number of direct admissions.

We have been much gratified to note the excellent use that is being made of the provisions of sections 1 and 5 of the Mental Treatment Act, 1930, in the area served by this hospital. During this year just over 49 per cent. of the total direct admissions have been received under these provisions, almost exactly one-third (72) having entered the hospital as temporary patients. Contrasted with the corresponding figures for 1936, these figures show an increase in number of 60 voluntary patients and 29 temporary patients, which is most satisfactory. No doubt increased activity at the out-patient centres accounts in part for these increases, which, together with the large flow of patients through the hospital, indicate that the mental health services of the area are functioning to advantage.

We were interested to find that a social worker, possessing suitable training and experience, had been appointed since the last visit and that her services are being utilized, in addition to her many other important duties, in preparing a boarding-out scheme. So far as we could gather preliminary replies to enquiries in the matter are proving satisfactory and our Board will await further developments with great interest. Such a scheme, together with the removal of the considerable number of defectives at present in residence to care better suited to their needs, would help to relieve congestion in the wards and make more beds available for acute cases.

Our tour of the wards left us with the impression that the patients were contented and appreciative of the arrangements made for their comfort. Generally, they presented a well cared for appearance and we were satisfied



that much attention is paid to individual needs. We were somewhat surprised to be told, on visiting the two male wards at Highfield, that there was a considerable proportion of patients in both wards whom it was found impossible to persuade to go out into the ward gardens for fresh air and exercise. No patient in these wards was in bed and we find it difficult to believe that the obstacles to getting these patients out are insurmountable; though of deteriorated or demented type they did not strike us as being a really difficult class of patient to deal with.

The wards generally were in good order and the supply of books, daily papers, periodicals and amusements for the patients seemed satisfactory. The opening of a branch of the County Library at the hospital has undoubtedly proved of advantage and we have no doubt that this connection should insure a larger and better supply of suitable reading for the patients; we hope it will be used to the utmost extent. As regards the furnishing of the wards, we understand that the old wooden pew type of bench is being gradually discarded. We should like to see this process accelerated and a larger number of arm-chairs provided in many of the wards.

Among a number of useful improvements which have been carried out during the period under review may be mentioned the conversion of the patients' dining-room at the laundry ward into a staff ironing-room, the installation of a steam garment press in the tailor's shop, the provision of synchronized electric clocks and installation of fire alarm and call bell systems, with siren. Extra accommodation for the female staff, in the form of an officers' messroom and nurses' messroom, has also been provided at Highfield. The rewiring of the hospital is now practically completed. Now that this last item is approaching completion, we hope it may be possible to accelerate somewhat the redecoration of the hospital which is sadly in arrear at present, although two wards (one each side) have been redecorated this year and one (F. 6) is at present being dealt with.

A well-equipped hairdressing saloon for female patients has been opened recently at which a qualified hairdresser attends every afternoon. Patients desiring her services come from the wards in rotation and it is considered that the provision thus made is of definite value in increasing their self-respect.

We have discussed with Dr. Parfitt the question of the small proportion of patients who are returned as attending church services. The percentage of patients attending Church of England services is shown as 12, and out of 82 indicated as professing the Roman Catholic Faith some 23 appear to attend Mass. No services are held for Nonconformists.

The standard of clothing for the women, both as regards variety and design, is satisfactory. Some improvement has also been effected in the men's clothing, and it is gratifying to find that the steam garment press above-mentioned has been installed. We feel that more attention should be paid to the men's neckwear; in some wards but few were wearing ties. On examining the stock lists of some wards and making enquiry in the male wards at Highfield it became obvious that the number of boots and shoes for wearing out-of-doors was inadequate. We found also that many of the male patients did not make use of night attire, preferring to sleep in their day shirts. We regard this latter practice as unhygienic and are sure, from our experience elsewhere, that with a little persuasion the patients could be induced to wear proper night attire.

We were glad to have an opportunity of discussing the question of occupational therapy with Dr. Parfitt. Considerable effort has been made during the 13 months which have elapsed since the last visit to strengthen the organisation of this department of treatment. Looking at the results, however, we are doubtful whether much progress will be found possible here without the appointment of a trained occupation officer. We think also that there is need for more occupation centre accommodation which might well be provided by means of a building of temporary type. The number of male patients employed in the workshops and general utility services is small. It has become



the practice at some hospitals to give patients who do useful work small weekly money allowances—either in cash or by way of token. These small payments are much appreciated by the patients and have been found effective in stimulating other patients to become active workers as well as a stimulant to good behaviour.

The death rate for the year ending December, 1936 was 8·7 per cent. (M. 9—F. 8·7). Since the last visit there have been 121 deaths (M. 49—F. 72), followed in 58 per cent. of cases by post-mortem examination. The chief causes of death were heart disease (42), pneumonia (29), senile decay (13) and organic brain disease (8). Five deaths were the subject of inquests, details of which have already been submitted to our Board.

The general health of the patients has been good. The hospital has been entirely free from epidemic or zymotic disease. At present 4 men and 9 women are known to be suffering from tuberculosis in active form and, where suitable, are undergoing open-air verandah treatment.

During the period under review there have been 8 casualties, of which 7 were fractures and 1 a dislocation. In 5 cases the cause was an accidental fall; in 2 cases the cause was the action of another patient, and in the remaining case no cause could be ascertained.

At the time of our visit 67 men and 120 women, or 13·5 per cent. of the total patients in residence, were being nursed in bed. This is a somewhat higher proportion of bed patients than is usually found in mental hospitals but is explained by the many forms of active treatment that are in practice here. Of these forms of treatment the most important at present is insulin. Twenty-six patients have completed their course of insulin therapy and 15 others are now undergoing it. It is noteworthy that cases of schizophrenia of some standing have been chosen for this treatment as well as recent cases. It is too early to generalize on results but it is obvious that the work here will prove of exceptional interest both on account of the number and variety of cases chosen. Cardiazol is another line of treatment: at present 12 male patients are having the benefit of it. Prolonged narcosis has been carried out for some time—the average number undergoing it at any given time being half a dozen of each sex.

We feel assured that a high degree of medical skill is at the disposal of the patients here and that all those in bed are in receipt of good nursing attention. All medicine cupboards have been remodelled and are now uniform in use and construction throughout the hospital.

We were much interested to learn that Dr. Parfitt and his medical colleagues meet twice weekly to discuss and exchange views on the clinical features of cases under treatment, and to hear that, in order to encourage further medical study, the Committee has decided to grant three months' study leave for medical officers, with full pay plus the value of emoluments.

A great deal of pathological work is done in the laboratory under the medical staff and a trained technician. Very full routine investigations are carried out on all admissions. These investigations include the Wassermann, Kahn and Meinicke reactions.

The hospital has the valuable assistance of visiting consultants in medicine, surgery, gynaecology, ear, nose and throat diseases, ophthalmology and dentistry. With the exception of the surgeon who visits monthly all these consultants pay fortnightly visits. We cannot help feeling that to a hospital of this size and importance the dentist should pay visits at least weekly.

It is most gratifying to record the exceptionally rapid increase in the activities of the out-patient centres which Dr. Parfitt and his medical colleagues conduct. This increase is best indicated by the number of attendances made by patients. In 1936 the total number was 157, whereas during the current year no fewer than 887 attendances have been recorded. The demand at the Coventry centre has become so great that since last August it has been necessary to have two sessions weekly. The Leamington and



Rugby centres are held once a week and Dr. Parfitt attends the weekly Birmingham session alternately with a medical officer of that Local Authority.

Some shortage of female nurses is reported.

Dr. Parfitt is assisted by Dr. S. A. MacKeith as Deputy Medical Superintendent, and has as Assistant Medical Officers, Dr. L. A. Hayward, Dr. R. S. Wilson and Dr. S. W. Gillman. There is also at present available Dr. Thomas as locum tenens and a position on the staff for a temporary medical officer is being advertised.

#### ISLE OF WIGHT COUNTY MENTAL HOSPITAL.

*July 13th, 1937.*

Since the visit of our colleagues just 12 months ago, a number of important additions and alterations have been made: these include the installation of talking picture apparatus in the recreation hall, the provision in the kitchen (which has been refloored and in part tiled) of much new equipment, the purchase of a new hydro-extractor for the laundry, and of a large number of excellent teak garden seats for the use of patients in the grounds, and the construction of 4 new padded rooms of the most modern design. In addition, the mortuary and viewing-room have been entirely re-arranged and redecorated with most satisfactory results, and the corridor walls throughout the hospital are being repainted.

Major additions in contemplation are the erection of a nurses' home and the renewal of the central heating system, both badly needed.

These efforts on the part of the Committee to bring this hospital up to date call, we feel, for congratulation, and though much remains to be done, the fact that so much already has been done is worthy of much praise.

There are to-day 370 patients resident in the hospital: of these 128 are males and 242 are females, while the total includes 57 voluntary patients (29 female and 28 male) and 4 temporary patients (3 female and 1 male).

During 1936 there were 121 direct admissions (44 male and 77 female), which included no less than 75 admissions as voluntary patients (31 male and 44 female) and 22 as temporary patients (5 male and 17 female). During the same period 69 patients were discharged or departed (25 male and 44 female). Of these 59 were voluntary patients (22 male and 37 female) and 4 were temporary patients (1 male and 3 female). Twenty-four patients (7 male and 17 female) died.

These figures show that in the area served by the hospital the facilities afforded for early treatment of mental disorder by the Mental Treatment Act, 1930, are fully appreciated, and we have, during our tour of the hospital wards, been most favourably impressed by the frank way in which questions of the status of the patients are discussed by them with the members of the medical staff, and by the fact that the refractory wards on both sides of the hospital contain voluntary patients who are appreciative of the treatment they are receiving, and who feel that from this treatment they are deriving real benefit.

There is some overcrowding in the hospital, the deficiency of space being for 11 males and 19 females by day and for 5 males and 29 females by night. This state of affairs will be considerably ameliorated when the new nurses' home has been erected, as then quarters now occupied by members of the nursing staff in the wards will be released for the use of patients; in some cases no doubt after some structural re-arrangement.

No patients are at present boarded out under section 26 or section 57 of the Lunacy Act, 1890, and we feel that the use of these sections is a matter which deserves the consideration of the Committee.

We saw all the patients in residence, and we found them as happy as their respective mental conditions allowed. In a hospital such as this, where only 3 wards (1 male and 2 female) are locked, there is an absence of sense of



restraint which reflects itself in the attitude of the patients generally towards life as they find it, and throughout the hospital the atmosphere is a contented one.

Patients' recreations receive much attention, and in this connection we are very glad to hear that the renting of a 9-acre field adjoining the hospital is contemplated. This field would be used entirely for patients, and in view of the fact that the existing out-door space is very limited we hope that nothing will happen to delay the acquisition of so valuable an amenity.

This year Dr. Charles Davies-Jones, the Medical Superintendent, has made a most important innovation in that for the first time a patients' holiday camp by the sea has been held. The experiment has proved an unqualified success in every way, and some of the patients who attended told us how much they had enjoyed themselves and how greatly they felt they had benefited by the change. The camp, which was for 10 selected male patients, was in charge of a medical officer.

There is a good canteen where patients may make their purchases, and here we have suggested that a supply of cosmetics for the female patients would be a useful and popular addition to the already good stock of articles now supplied.

The library is now in charge of a patient who is interested in the work, but we should have liked to have seen more reading matter, particularly bound volumes of old illustrated magazines in the wards where the more acute patients are accommodated.

The talking-picture apparatus recently installed is, we are confident, an addition which appeals very much to the patients.

The dietary, which is on a 4-weekly basis, is particularly generous and well varied, and a recent improvement to which we attach much importance is the substitution of butter for margarine.

The dormitories and day-rooms are well kept, and in the former the bedding is gradually being improved. The day-rooms are at present rather bare, but the provision of better furniture is a matter which will receive attention as funds permit, and a few pictures and a more generous supply of pot-plants would do much to make the rooms more attractive.

We noted with much interest and pleasure that a beginning has been made, experimentally, with equipping side-rooms with door-handles on the inside and switches for the control by the patients of the electric light. This is a real step forward, and one upon which Dr. Davies-Jones is to be congratulated.

The mortality rate for 1936 was 6.7 per cent. Since the last visit there have been 33 deaths, post-mortem examinations having been performed in just over half the cases.

Tuberculosis was responsible for the death of 1 male patient only, while at present 1 male and 2 female patients are under treatment for this disorder.

One patient of each sex died from general paralysis during the same period and 1 woman died from epilepsy. The remaining causes of death call for no special comment. There have been no inquests, and there have been only 2 serious casualties, both fractures sustained in accidental falls.

The hospital has again been entirely free from epidemic illness. The isolation of the one known typhoid carrier and of 5 others who have had typhoid fever, the examination of newly admitted patients for possible enteric infection, the inoculation of all in whom no contra-indication to this measure exists, the improved facilities for dealing with linen which may be infected and the constant laboratory investigation which involves a considerable amount of patient work, are among the means by which the infection, which has been troublesome in past years, appears to have been checked.

The patients are, we think, under medical care which combines clinical activity in the discovery and treatment of physical disorder with purposeful investigation of psychological troubles, as well as with friendly attention to



their personal interests and wishes. It is interesting to know that patients have been sent for radium application and for operation to local hospitals under the care of their own nurses.

The relationship between the patients and the nursing staff appears to be kindly, and some of the notes which we saw, written by members of the nursing staff on their patients, showed thoughtful observation.

The present nursing staff consists of 28 male and 32 female nurses, including charge nurses, 6 of each sex being employed on night duty. Of the male nurses 18 (about 64 per cent.), and of the female nurses 24 (75 per cent.), are certificated or registered as mental nurses. Two candidates (one of each sex) have recently passed the preliminary examination for State registration.

The out-patient clinics continue to deal with many patients, the number of new patients having risen from 120 in 1935 to 136 in 1936, while the sessions have increased from 124 to 163 during the same period. We should like to mention 2 special features, first, that arrangements are made for cases who need more time and individual investigation and treatment than the majority, to attend the clinic at this hospital, and secondly that the clinic at Cowes was opened at the request of the Urban District Council.

The patients' clothing is on the whole comfortable, and we have been very glad to see that thread-marking of garments has replaced the unsightly and uneconomic method of marking with an inked stamp. Some of the under-clothing for the women patients is of a type which cannot be regarded as modern, and while we recognize that styles of garments now usual in urban areas are not necessarily desired by patients, particularly older patients, drawn from a rural population, we hope that an effort will be made to introduce for the younger women and others who would appreciate them some of the lighter and simpler patterns now in common use elsewhere.

Similar considerations lead us to hope that before long pyjamas may be substituted for nightshirts for the use of the men.

In the absence on holiday of the occupation mistress we were unable to see much of the activities of her department, but we were shown a large selection of goods which had been made, many of them showing skill of a high order.

Dr. Davies-Jones is assisted by Dr. Alexander Wood, the Deputy Medical Superintendent (who, however, was on leave at the time of our visit) and by Dr. H. T. J. Hynes.

We wish to thank Dr. Davies-Jones for his assistance and for the arrangements he made for our comfort during our visit.

#### WILTSHIRE MENTAL HOSPITAL.

*June 30th, 1937.*

We have to-day and yesterday paid the annual visit for our Board to this hospital, and we have been glad to find that the long discussed reconditioning of the main block is on the point of being started. The need for reorganization and modernization of the wards has been apparent for a long time and our own tour of the hospital has given us convincing proof of the urgency of the work. Further criticism of the state of the wards is, we are glad to think, unnecessary, but we would suggest that pending the reconditioning, which is of course bound to take a long time, some efforts at improving the appearance and cleanliness of washrooms and ward kitchens should be attempted in those wards in which redecoration will not be commenced for some time.

We have suggested to Dr. Leech that it would facilitate the nursing of the sick if fitted wash-basins with running hot and cold water could be installed in all dormitories in which patients are usually nursed in bed. This improvement could be effected, we imagine, fairly easily during the reconstruction of some of the wards.



We were shown yesterday a new electric plate warmer which is being tried out in one of the wards and we were glad to learn that it is hoped to install a number of these throughout the hospital. The need for some method of heating plates was very noticeable to-day for we observed that the hot dinner was being served out on cold plates in those wards in which we were present during the dinner hour.

The dietary is arranged on a fortnightly rota and does not display a very great variety. The dinners are only varied on Sunday, Monday and Friday. We would like to suggest the introduction of a three-weekly dietary with a different dinner on each day of the period. This system has been found to be most successful in all those mental hospitals in which it is in force. We would like to see a further increase in the provisions of green vegetables and fresh fruit.

We discussed the question of sick dietary with Dr. Leech and we were glad to find him in sympathy with our suggestions regarding the avoidance of monotony. We appreciate that thanks to the excellence of the canteen, which is in our view one of the best in the country, many patients who have pocket money of their own are able to add a great variety of delicacies to their daily dietary.

Various improvements have been effected during the past year to the patients' clothing. Woven underwear is now being stocked for the use of female patients and we are sure it will be much appreciated by them. The steam trouser press in the laundry is proving very useful for pressing out the men's suits after they have been washed.

We visited the hairdressing room at the annexe and we were glad to be told how popular it has become. In course of time, no doubt, further apparatus will be acquired, a larger drying machine in particular would be a valuable adjunct.

The wards generally are comfortable and well provided with books and games, although a number are still without wireless sets. Since the last visit some of the day-rooms and dormitories have been furnished with window curtains, which add to the home-like appearance of the wards. We noticed that some of the mattresses appeared very thin and in a number of cases too short for the bedsteads. Where a patient is being nursed in bed on a short mattress the tendency is for the mattress to slip towards the foot of the bed and discomfort results.

We would like to see the number of bed jackets increased in the infirmary and admission wards.

We have been much pleased with what we have seen of the occupational treatment of patients here. Most useful work is being done amongst all grades and reflects great credit on those concerned. Folk dancing is very popular, we were glad to find, and there are also classes for physical drill.

We believe we have seen all the patients in residence and we have given 7 private interviews. The patients were on the whole quiet and contented and in many cases very grateful for the kindly care and attention they enjoy.

There are 1,181 patients (520 men and 661 women) in residence to-day. Of these 20 men and 27 women are voluntary patients; the other patients all being certified. Thirty-five women are out on leave or on trial, giving a total on the statutory books of 1,216.

Thirty-two men (31 in the service or ex-service group) and 21 women are private patients and pay from 28s. to 30s. a week. The maintenance charge for rate-aided patients is 20s. 8½d. and the average weekly maintenance cost is 20s. 0·5d.

During 1936, of a total of 242 direct admissions 73 were voluntary, 3 were temporary and 166 were certified patients. The figures for the admission of temporary patients cannot be regarded as satisfactory and seem to show that the possibility of avoiding certification of certain types of patient is not yet fully appreciated by medical practitioners in Wiltshire.



Overcrowding on the female side appears to be steadily increasing and there is now a shortage of space by day for 89 female patients and by night for 59.

Thirty male patients enjoy parole within and 40 without the grounds and 1 woman enjoys the same privilege within and 10 without the grounds.

We visited the new chapel which is to be dedicated in July next. It is a most pleasing building. It will afford seating accommodation for 200 and allowance has been made for the possibility of a future extension.

The Nurses' Home has recently been extended to provide space for 16 nurses' bedrooms and these are on the point of being occupied.

The nursing staff consists of 13 charge nurses of each sex, 50 male and 65 female ordinary nurses and there are 17 men and 18 women nurses on night duty. Forty-six men and 23 women are certificated or registered as mental nurses and 19 men and 30 women have passed the preliminary examination.

The mortality rate for the year 1936 was 8·7 per cent.; the percentage on the male side being considerably higher than on the female—11 per cent. compared with 7·8 per cent. Since the last visit 94 patients have died—44 males and 50 females. Post mortem examinations were held in 71 cases.

With one exception the deaths were due to natural causes. Cardio-vascular degeneration was responsible for 25 cases, heart disease 19, and pneumonia 11.

The incidence of tuberculosis at this hospital is still considerably higher than the mean rate for all mental hospitals. During 1936, 13·4 cases were notified per 1,000 population as compared with 6·8 for all mental hospitals and the death rate was 5·9 as compared with 4·5. At the present time there are reported to be 21 cases in the hospital. As the re-organization of the older parts of the building are taken in hand opportunities of improving the ventilation will arise and we confidently anticipate a decrease in the incidence of tuberculosis.

Since the last visit 5 fresh cases of dysentery have been notified. These cases have occurred sporadically in the old building, 4 on the female side in wards 3 and 9, and 1 in male 7. A sterilizer has been installed in the laboratory in order to facilitate the work which is being done in connection with this disease.

In January of this year an outbreak of influenza occurred, 209 patients and 21 members of the staff being attacked. Three patients died from this disease.

Two male and 7 female patients have sustained fractures of bones. Seven of these were due to accidental causes and 2 to violence by other patients. The provision of an X-ray machine would be most useful in the diagnosis of injuries and also in the treatment of some diseases.

Dr. Leech and his medical staff rendered us every assistance during the course of our very interesting visit and we were very glad to have the opportunity of meeting the chairman of the visiting committee, Canon Gowing, at luncheon to-day.

#### WORCESTER COUNTY AND CITY MENTAL HOSPITAL, POWICK.

*July 20th, 1937.*

We have been unfortunate in paying the annual visit on behalf of our Board in the absence of Dr. Fenton on his annual holiday. In his absence, however, Dr. Boyle, the Deputy Medical Superintendent, has done everything in his power to facilitate our enquiries and our thanks are due to him and to the assistant medical officers for their most helpful attitude.

It is now nearly 10 months since our colleagues visited in 1936 and we have been gratified to find that serious attention has been given to their very full report and the many important issues raised by it. Some of their suggestions have already been adopted and others, such as the provision of a



nurses' home, are receiving the careful consideration of the Visiting Committee. Their suggestions regarding diet were met by an immediate alteration in some of the items criticised and the whole question of the hospital dietary is still being gone into by the Committee. In this connection we have made suggestions to Dr. Boyle which he has promised to pass on to Dr. Fenton with regard to the need for a special dietary for the sick. The provision of a mechanical mixer and mincing machine in the kitchen would facilitate this.

We have found the patients on the whole happy and contented. The noisy condition of some the wards where the more deteriorated patients are housed may well be due to the fact that, so far, occupational treatment has not to any extent found a footing at this hospital. It is encouraging, however, to hear that Dr. Fenton and some members of the Visiting Committee have recently visited a neighbouring hospital to study occupational methods of treatment there, and we trust that this visit will have fruitful results.

The social re-education of patients by means of occupation therapy is greatly helped by the introduction of physical drill and country dancing. We have seen most encouraging developments on these lines at other hospitals and would suggest their introduction here.

We believe we have seen all the patients in residence and we gave all who desired to do so an opportunity of talking to us. Nine private interviews were granted either yesterday or to-day and many other patients had long talks with us of a semi-private nature. Complaints on the whole were not numerous, but several patients did ask us if they could be given work—such as knitting or rug-making—to do, a request with which we had much sympathy, and one or two others complained of having no glasses and of needing them—we mention the question thus raised in another part of this report.

The clothing of the female patients is receiving a good deal of attention and modern underclothing of woven wear is being generally introduced although, naturally, stocks of the old fashioned garments have to be used up. The women's dresses also are being improved and we were shown some most pleasing frocks, both for summer and winter use. The methods of storing both these and outdoor garments are admirable for the women and we trust that similar storing facilities will shortly be provided on the male side. The male clothing is not so satisfactory as the female and the appearance of the male patients suffers considerably from the nondescript garments worn by many of them and by the obsolete neckties still issued to the male wards. Ties of a similar type to those worn by the general public can be bought so inexpensively and are now provided by so many mental hospitals that we look forward to their introduction here. The male dress generally would be much improved by the installation of a steam trouser press in the laundry.

Another matter affecting the male patients may here be mentioned. Shaving takes place twice a week and is done actually in the wards. We noticed yesterday at the annexe that the dormitory of the sick ward, where patients were being nursed in bed, was being used. We would suggest that the general bathroom would be a more suitable place. A separate room used as a barber's shop by the whole male side is, of course, the ideal arrangement.

The wards generally were neat and tidy. More is done to make the best of the old-fashioned rooms on the female side than on the male side, and one or two of the male wards struck us as being particularly bare and devoid of ornament and we noticed that in these all books, papers and periodicals seemed to be locked away. Birds in bird cages are a pleasant feature in many of the day rooms and patients appeared to take much interest in them.

In passing, we might mention that daily newspapers are delivered to the hospital only at 3 p.m. and that in consequence the papers are generally a day old in the wards. We feel it should be a simple matter to alter this system.

We suggested that cupboards in which patients' private food parcels are stored might, wherever possible, be arranged next to an outside wall



and ventilation provided and we were glad to hear that it should not be difficult to make this improvement.

In two of the male wards additional water-closets have been installed and it is hoped shortly to start building the new sanitary spur to F. 5.

The ward gardens are well laid out with lawns and flower beds and are most pleasing in appearance. The paths and asphalted spaces in many of these gardens and also in other places such as the laundry yard, are much broken up and quite dangerous in places to infirm old patients. We hope a good deal of re-asphalting will shortly be carried out.

We have made certain suggestion regarding the storing of bread in the bake-house and we hope it will be possible to provide suitable racks for the loaves cooling after being taken from the oven. A coir or rubber mat should be provided at the door leading from the yard into the bakehouse.

The new treatment centre has recently become available for the treatment of patients and full use is being made of the facilities there provided. For surgical purposes the operating theatre and X-ray plant have proved a boon, and we learn that a number of cases showing evidence of sinus and other focal infections are receiving appropriate surgical attention.

Dental treatment, artificial light, colon-lavage are separately provided for and we are sure that the medical and nursing staff are keenly interested in these methods of treatment. In this connection we would reiterate the remarks made in the previous entry of our colleagues, relating to the desirability of providing a technical assistant in the laboratory, so that the usefulness of the centre may be amplified by laboratory investigation, which cannot now be adequately carried out.

We think, too, that provision should be made for eye testing, and that in addition to the other visiting specialists an ophthalmologist should be appointed to carry out periodical examinations of patients selected by the medical staff.

Protein shock, prolonged narcosis and prontosil injections are methods of treatment employed in the wards and the case notes are full, informative and regularly entered up.

The laundry arrangements, we believe, are the subject of investigation at the present time and we would suggest that among the improvements which may be carried out, that of more effective methods of cleansing clothes bins should receive attention. The system of receiving foul linen and the general state of the laundry drying ground were matters discussed with the deputy medical superintendent.

We visited the farm buildings and would suggest an improvement with which we hope the Committee will agree—that the manure heap should be removed from its present site where it is in rather close proximity to the cow sheds, and that in the yard thus vacated it might be found convenient to provide simple arrangements for the staff to wash before milking and for hanging the special clothes already provided.

The number of patients in residence to-day is 1,125—497 males and 628 females. Of these 5 men and 9 women are voluntary, and 1 man and 2 women are temporary patients. Only 1 woman is at present out on long leave and the number of names on the statutory books is therefore 1,126. During 1936 of the 130 direct admissions, 20 were admitted on a voluntary basis and 5 were admitted as temporary patients.

Thirty-one men (23 in the service or ex-service group) and 4 women rank as private patients, and the weekly charge for these is 25s. 1d. The weekly charge for rate-aided patients is 19s. 3d. and the weekly maintenance cost as last ascertained was 18s. 9½d.

Except for a deficiency of accommodation by night on the female side for 6 patients, there is now no overcrowding in the hospital.

The amount of parole granted remains unusually low, only 4 men enjoying this privilege beyond the estate and 41 men and 9 women within the grounds. Wards F. 9 and 12 and M. 8 are administered on the open door principle (to the ward gardens).



The present staff of nurses consists of 10 men and 12 women of charge rank, 43 men and 58 women ordinary nurses and 10 men and 13 women on night duty. Forty-six male and 34 female nurses are certificated or registered as mental nurses and 6 men and 9 women have passed the preliminary examination.

We are glad to note the continued absence of dysentery but have to record the occurrence of 1 case of enteric fever.

The mortality rate for the year ending December 31st, 1936 was 4·9 per cent. Since the last visit on September 30th, 1936, deaths have numbered 61 and in 85 per cent. of these cases post-mortem examinations were made.

Of the causes of death, heart disease in 29 cases (of whom 20 were women) carcinoma 8 cases (4 of each sex) and brain diseases 8 cases, were the commonest. General paralysis was recorded as the cause of death in 2 female patients and pneumonia in 4.

An inquest was held in the case of 1 senile female patient who had accidentally sustained a fracture of the femur.

Fractures to the number of 9 were the most serious casualties recorded, and in 2 of these the accident was attributable to the action of another patient.

#### WORCESTERSHIRE MENTAL HOSPITAL, BARNLEY HALL.

*November 12th, 1937.*

In May of this year the hospital sustained a sad loss in the death of Dr. A. H. Firth, its medical superintendent since 1933. He tendered his resignation on the score of ill-health some time previously but died before it took effect. Dr. Firth joined the staff as deputy medical superintendent in 1914 and since his appointment as superintendent in 1933 had laboured under the grave burden of serious ill-health almost continuously.

The visiting committee appointed to succeed Dr. Firth, Dr. Andrew Shepherd, the deputy medical superintendent since 1933.

Dr. Shepherd has rendered us every assistance during the course of our tour of inspection and we have had ample opportunity of discussing with him the various problems of the hospital. We have found him to have a very clear idea of these problems and with progressive views as to their solution and most receptive of any suggestions we have put forward. We wish him every success in his big task.

Since the visit of our colleagues a little over a year ago, work has been started on the erection of an operating theatre adjacent to the main corridor on the female side. At the present moment the walls are three parts of the way up and upon inspection we were able to visualize what the completed building will be like. It should form a very valuable adjunct to the hospital.

We also inspected the site of the proposed admission hospital, plans for which are now far advanced. This unit will be designed for 30 beds for each sex and should enable the early treatment of mental disorders to be carried out under ideal conditions.

At the present time the isolation hospital is unoccupied, although it is kept in a state of good repair and order by the residence of a married artisan as caretaker. It provides accommodation for 8 patients, on each side of a small central block. We have discussed with Dr. Shepherd the possibility of its use, as a temporary measure, as a villa for female patients. This would be of immediate value in reducing the overcrowding of the female side which persists in spite of the removal of the out-county patients.

There are to-day 662 patients—287 men and 375 women—in residence. Of these 6 of each sex rank as voluntary patients and 1 woman as a temporary patient. In addition to these numbers 5 patients are out on long leave or on trial, giving a total on the statutory books of 667.



Upon the figures submitted to us there is a shortage of accommodation on the female side of 12 by day and 33 by night. On the male side the overcrowding has disappeared by reason of the removal of out-county patients although even now the dormitories seem to have but little space between each bed. The position with regard to numbers will no doubt continue to be of much concern to the visiting committee. It will be some years before the admission hospital beds will become available.

There are 40 men (18 in the service or ex-service group) and 47 women who rank as private patients and the charge for these is 35s. per week. The weekly maintenance charge for rate-aided patients is 21s. 7d. and the weekly cost is approximately the same.

During 1936 there was a welcome increase in the number of voluntary admissions—22, more than double those of the previous year, but the same number of temporary admissions—3—must be recorded. It is to be regretted that knowledge of Section 5 of the Mental Treatment Act, 1930, should be spreading so slowly in the area served by this hospital.

No patients are given parole beyond the estate, but 22 males enjoy the privilege of parole within the grounds and from 12 to 14 male patients are taken for a weekly walk. No women, however, are given parole of any kind and walking parties are difficult (although they took place last summer) owing to the grave shortage of female staff—alluded to elsewhere in this report.

A very important forward movement has taken place at this hospital in connection with physical training and occupation therapy. Drill classes are now established on both sides of the hospital. Thirty male patients, divided into 2 classes, receive regular training as also a group of women, recently equipped with perhaps the best gym. dress we have yet seen at any hospital. We witnessed this group exercising in the recreation hall yesterday.

Miss Hosegood has since the last visit been appointed occupation officer and a centre has been established in the female visiting room. Classes are held every day—for females in the morning and for males in the afternoon—except on Mondays.

Evening classes are also held twice a week for female working patients between 5.30 and 7.30 to encourage in them the liking for hobbies. In addition Miss Hosegood holds classes in some of the wards. We look forward to the progressive development of this important form of treatment.

The condition of the wards is generally good and a good deal of re-decoration has recently been executed on the female side and it is hoped to carry out similar work on the male side during the coming winter.

Sanitary spurs off the dormitories of wards A and A1 are now being built. Some of the day rooms on both sides remain somewhat bare and comfortless and the floors are still in need of rugs.

Clinical rooms are being contrived, we were glad to find, in 2 wards on each side of the hospital.

Dr. Shepherd has introduced new cutlery in some of the better wards as well as in the sick wards. It is a notable improvement.

We saw a good dinner of roast pork, potatoes, cabbage and apple pie served to the patients yesterday and we have examined the daily menus. We should like to suggest the addition of cocoa for the suppers of those patients privileged to sit up until 9.30 p.m.

The kitchen, which is not over-burdened with apparatus for cooking, is much in need of a mechanical mixer.

Since one of us visited this hospital 2 years ago the question of the female patients' dress has received considerable attention. Modern underwear and more attractive outer garments have been introduced with excellent effects. We think indoor shoes for the women are needed and note that these are provided on the male side.

A steam clothes press for the tailor's shop to deal with male suits after being washed in the laundry would greatly improve the male dress.



We were glad to find that the question of a hairdressing room for the women patients is being considered by Dr. Shepherd.

The canteen is now an established feature of the hospital and workers receive coupons for work done and in lieu of the tobacco and sweet rations which they can cash there. Patients with private pocket money also make purchases there. We hope that part at any rate of the profits will be devoted to a patients' comforts fund as is the case at a number of other hospitals.

We visited the mortuary this morning and after seeing the viewing room we feel that with some re-arrangement and at very small cost it should be possible materially to improve its appearance.

Mental clinics are held at the General Hospital, Birmingham on alternate Tuesdays and weekly at the Corbett Hospital, Stourbridge. These occupy much of the superintendent's time, assisted as he is in his work by 2 medical officers and the fact that there is no social worker is a disadvantage which must affect the success of the treatment given at the clinics and at the hospital. The services of a social worker are inestimable during the transitional period following discharge from the hospital, and we would mention as a detail exemplifying this point, the case of a high-grade feeble-minded girl with temperamental difficulties about to be discharged to her home where she has already been unmanageable. In this case contact with a sympathetic social worker would effect a controlling influence and considerably improve the prospects of remaining well. There are many others who would similarly benefit from the services of such a person working in liaison with the clinics and the hospital.

The shortage of female nurses is a serious matter and is one that is receiving the earnest attention of Dr. Shepherd. At the time of our visit the whole staff of nurses consisted of 7 men and 9 women of charge rank and 36 male and 26 female ordinary nurses and 8 men and 9 women on night duty. Forty-two men and 16 women are certificated or registered as mental nurses and 3 men and 11 women have passed the preliminary examination.

There is a shortage of female nurses amounting to 26 as the full complement should be 70. The causes of such a shortage are many and pertain also at other hospitals. We feel that if nurses are to be attracted and retained the standards of their accommodation must be satisfactory. Here the sitting rooms and dining room might be much more attractive, particularly with regard to equipment. Modern furniture, comfortable chairs, pleasant curtains and a library in the sitting rooms, small tables in the dining room, better carpets in the bedrooms and also improvement in the bathroom equipment would greatly increase the comforts of the nurses in their leisure hours.

It is gratifying to hear of the recent formation of a social club amongst the staff through the initiative of Dr. Shepherd. We hope that the enthusiasm exhibited by its members will be continued and the success of the venture assured. Sports, entertainments and other recreations are to be properly organized by elected committees. We shall be interested to hear of the progress the club makes.

We are glad to know that efforts are being made to develop the clinical work of the hospital on lines which will enhance the knowledge of individual patients by the medical staff. For example, clinical discussions will be held in each case and lines of treatment prescribed accordingly. It is hoped, too, that the laboratory in its several aspects will receive the attention of the medical officers and for this purpose additional equipment will be necessary. These are schemes which will occupy much time and labour if they are to be successful, and the present medical staff may not be adequate when all factors are considered.

Of the nursing standards, affected as they must be by shortage of nurses, we can say that generally they are satisfactory.

In some wards certain details of ward hygiene require further attention, for example, the soiled linen bins should be emptied directly into the metal



containers provided and as a means of keeping ward gardens tidy we think that a small group of male patients under the direction of a member of the male staff might keep the gardens and yards on both sides tidy. This would relieve female nurses of this duty on their side.

We noted that the bed linen is a bad colour and hardly more than rough dried. This is due to the limited facilities of the laundry. It seems to us essential that a multi-roller calendar should be provided as well as a modern hydro-extractor. The roughness of the sheets must affect the comfort of patients nursed in bed.

At the time of our visit there were 38 female patients and 17 male patients confined to bed. The majority of these were receiving treatment for physical ailments. Unfortunately there has been an outbreak of a contagious skin condition on both sides of the hospital and a few cases are still receiving treatment.

On the female side 5 patients were suffering from tuberculosis and on the male side 2. During 1936 the number of new cases notified was 7·1 per 1,000 on the male side and 1·4 on the female. The mean figures for all hospitals for that year being 6·8 per 1,000 and 4·5 respectively.

Since last visit there has been 1 case of acute encephalitis.

In the same period deaths from pneumonia numbered 15 (8 men and 7 women). Of the other causes of death, heart disease (20 cases—10 of each sex) was the commonest. Acute pulmonary oedema accounted for the death of 2 men and 1 woman. The mortality rate for the year 1936 was 7·2 per cent. and during the period under review there have been 52 deaths—21 male and 31 female.

Inquests were held in 2 instances and in each a verdict of death from natural causes was recorded.

Of injuries of a more serious nature 7 were fractures, 4 involving the upper limb, 2 the lower—of which 1 was spontaneous in nature—and 1 of the ribs. In 2 cases the accident was due to interference by another patient.

Dr. Shepherd has to assist him Dr. John Leonard Clegg who has recently been appointed deputy medical superintendent and Dr. James MacWilliam MacGregor whose appointment also is of recent date.

#### YORKSHIRE (NORTH RIDING) MENTAL HOSPITAL.

*March 24th, 1937.*

Our visit to the hospital, which has occupied the whole of the past two days, has been of great interest to us and we have been much impressed by the general air of contentment prevailing. This state of affairs is no doubt due to the very active interest taken in the needs of the individual patients by the whole of the staff, from the Medical Superintendent downwards, and to the thoroughness with which each detail of their treatment, recreations, and the general arrangements for their comfort are thought out and organised. There is a spirit of activity throughout all departments of the hospital which is very pleasant to see.

During the year 1936 according to the statistics placed before us there were out of a total of 227 direct admissions, approximately 41 per cent. and 4·4 per cent. patients admitted on a voluntary and temporary basis respectively. The number of patients admitted direct from their own homes is highly satisfactory, the percentages being 90 for voluntary patients, 100 for temporary and 66 for those under certificate. Great credit is due to all concerned for the commendable way in which both Sections 1 and 5 of the Mental Treatment Act, 1930, are being worked in this district.

There are on the statutory books the names of 1,028 patients (448 men and 580 women) of whom 119 (53 men and 66 women) are voluntary and



2 (women) temporary. All these patients were in residence with the exception of 3 who were away on trial. There are 61 private patients, which number includes 14 men of the service or ex-service class.

The out-county patients number 93 (51 men and 42 women) all of whom are under certificate with the exception of 3 women who are on a voluntary basis. There is a deficiency of accommodation by day for 5 men and 37 women and by night for 29 women.

One thing which struck us throughout our tour was the lack of facilities for treatment of recent cases. By this we mean such facilities as are now commonly provided at the modern admission hospital with ancillary villas for each sex. The absence of such facilities place the hospital at a disadvantage with the majority of mental hospitals of similar importance in the country. We were therefore very much interested to hear that a party consisting of members of the Committee, together with the Medical Superintendent and the Clerk, had recently visited a number of hospitals possessing modern admission units with a view to studying their lay-out and the advantages they offer.

The wards of the hospital are well kept and attractively decorated with a plentiful supply of flowers and plants. Many improvements have been carried out since the last visit of the Commissioners, one in particular which commended itself to us was to be found in the side rooms where the small windows have been replaced by ones of full length pleasingly furnished with curtains of a bright colour. The presence of furniture in some of these rooms gave a homely effect and has added to the occupiers' comfort.

A new floor has been laid in the recreation hall and the old seats have been replaced by a new type—a combination seat. When not in use these seats can be stacked one on top of the other and so occupy a minimum of space.

The change over to a supply of water from the York Waterworks has enabled a large tank above ward F.2 to be dispensed with. Here a new dormitory and its sanitary annexe is to be built: this will also enable the existing sanitary accommodation of the ward below to be increased. Alterations to such annexes in wards F.1 and 5 and M.1 and 5 are to be carried out shortly. The heating system of the hospital is also to be completely reconstructed, together with that of the hot water supply, and new main boilers are to be installed.

The dietary of the patients is full and varied but we were sorry to see that in some wards a proportion of the crockery consisted of enamel ware; we hope it will be found possible to replace this by porcelain.

The weekly maintenance charge per head for home patients is 2ls. and that for private patients 3ls. 6d. The average weekly maintenance cost as last ascertained is 22s. 4.2d.

The patients have a good supply of books, newspapers and indoor games, while football and netball are among the outdoor recreations. It was of interest to learn from Dr. Russell that only about 10 per cent. of the male patients can be drawn from for playing active games.

Thirty-six patients enjoy parole beyond the estate and 47 parole within the grounds. Fifty-three per cent. of the patients are taken for walks within the Hospital's estate.

There is a talkie cinema performance and a patients' dance once a week. We attended one of the latter entertainments which was obviously enjoyed by all concerned; dance music was supplied by the staff band whose playing was unusually good.

Occupation therapy, upon which this hospital has been complimented in previous entries, continues to be of a high standard. We watched some beautiful and varied pieces of work being executed; other types of articles which were being made by lower grade patients, were also much in evidence. It is most satisfactory to be able to record that 89 per cent. of the total number of patients are occupied or employed in some form or other. Physical exercises for the men and Morris dancing for the women are arranged in conjunction



with occupational treatment. A class of each sex gave us a demonstration and judging by the type of patient selected and by the character of the instruction we are sure that good results will ensue.

An out-patient clinic is held weekly at the hospital but it does not appear that attendances are very numerous. The area served is a large and scattered one and a considerable proportion of its habitation is located in its north-eastern section. We believe that an out-patient centre in that section, preferably at Scarborough, would be a valuable addition to the mental health services of the Riding.

A visit was paid to the Farm where the byres and arrangements generally are somewhat old-fashioned. The sterilizing plant was under repair but so far as could be ascertained proper measures are taken to ensure a good and clean supply of milk.

The death rate for the year ending December 31st, 1936, was 6·6 per cent. for the men and 7·5 per cent. for the women. Since the last visit, twelve months ago, there have been 82 deaths (32 men and 50 women) followed in 50 cases by post-mortem examination. Among the principal causes of death were:—Cardio-vascular disease (23), senility (21), kidney disease (7), cancer (7), and pneumonia (6). An inquest was held on a patient who died some days after admission and who had had a fall at her own home previous to admission.

The general health of the patients has been very good apart from an outbreak of influenza spread over the past three months and affecting 102 male and 72 female patients. With the exception of 3 women, in whom this illness ended fatally, all have made satisfactory recoveries.

The hospital has been entirely free from dysentery but early this year two female patients developed enteric fever. Detailed and repeated bacteriological investigation on all contacts resulted in the discovery of a carrier in the ward from which these patients came. All necessary precautions to prevent the possible spread of infection are being taken.

Diphtheria attacked 2 women last month. The source of infection was not discovered but both patients are now convalescing.

Seven men and four women are at present suffering from tuberculosis in active form and, where suitable, are undergoing open air verandah treatment.

At our visit, we found 61 males and 81 female patients being nursed in bed. This figure represents 13·8 per cent. of the total patients in residence and, while rather higher than that usually found in mental hospitals is accounted for by the large proportion of old and senile cases here. We had the advantage of discussing all bed patients with their respective medical officers and found them in receipt of skilled medical and excellent nursing attention.

During the period under review there have been 5 major casualties—all in the nature of simple fractures and due to accidental falls.

We paid a surprise night visit here two nights ago and went into all the dormitories which were pleasant, comfortable and well ventilated. We were pleased to find the patients unusually quiet and ascertained that only 2 sleeping draughts had been issued that evening for the whole hospital.

It is the custom of male patients here to sleep in their ordinary day shirts. While we understand that many will always insist on this from personal choice, we feel that if suitable night attire were provided, the younger patients and the new admissions might be encouraged in its use.

The present nursing staff consists of 24 charge nurses (11 male and 13 female) and 132 ordinary nurses (66 male and 66 female). Of the latter, 7 men and 9 women are on duty each night. Fifty-four per cent. of the male and 31 per cent. of the female staff are certificated or registered as mental nurses. The relations between the patients and nurses were everywhere cordial and friendly.



We paid a visit to the Nurses' Home which is small and lacking in adequate recreation rooms but we were pleased to hear that considerable additions to this Home are contemplated in the near future. A male staff recreation room has been added at Chestnut Cottage.

Dr. Russell is assisted by Dr. W. Fraser as Deputy Medical Superintendent, and has Drs. J. J. O'Riordan and J. M. Frew as assistant medical officers. All the members of the medical staff hold the Diploma in Psychological Medicine.

#### YORKSHIRE (WEST RIDING) MENTAL HOSPITALS.—1. WAKEFIELD.

February 12th, 1937.

During the year 1936, according to the statistics placed before us, there were :—

	Voluntary.		Temporary.		Certified.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Direct admissions ... ..	123	124	12	22	143	157	278	303	581
Departed or discharged (excluding transfers) ...	89	115	—	—	51	61	140	176	316
Of whom had recovered	18	54	—	—	31	41	49	95	144
Transferred to other statutory care ... ..	—	—	—	—	30	47	30	47	77
Allowed out on long leave or trial ... ..	—	—	—	—	24	34	24	34	58

From the above figures it is very gratifying to note that nearly 50 per cent. of the admissions were under the Mental Treatment Act, 1930, which demonstrates the sustained appreciation of the advantages to be gained from Section 1 of that Act. Nine out-patient clinics are now held weekly and the opening of a tenth is contemplated at Harrogate. During our visit we were able to inspect Tonbridge House, one of the 3 out-patient clinics held in Leeds. This house serves as the headquarters of the Social Worker who, besides doing valuable work on behalf of all the clinics, renders good service to the hospital itself in investigating the homes of patients to be sent on leave or trial.

It is of interest to record below the small proportion of patients admitted from Public Assistance and Municipal Institutions under Sections 1 and 5 of the Mental Treatment Act, 1930, compared with those who came from their own homes and elsewhere.

						Public Assistance Institutions, etc.	Homes, etc.
Voluntary ... ..	...	...	...	...	...	25	222
Temporary ... ..	...	...	...	...	...	13	21
Certified ... ..	...	...	...	...	...	195	105

There are now 2,581 names on the statutory books, of whom 1,288 are men and 1,293 women : of these, 115 and 124 respectively are voluntary, 3 and 9 respectively temporary, and 1,170 and 1,160 respectively are certified patients. The private patients, of whom there are 110, include 101 service and ex-service patients.

The weekly maintenance charge per head for home patients is 21s. 7d. and for private patients 26s. 10d. The average weekly maintenance cost as last ascertained was 21s. 8½d.

We believe we have seen all the patients on the books, with the exception of 7 certified patients out on long leave or trial, and given them opportunities to make any statements if they so desired. Twelve private interviews were given, most of them were requests for discharge or transfer to other wards or institutions.

The buildings of this hospital can be divided into 4 groups, namely :—the Main Block, built between 1818 and 1870, the block known as the Acute Block, built in 1899, 2 smaller blocks built in 1904 and 1916, which are situated between the 2 above-mentioned blocks, and, fourthly, the group comprising the outlying houses known as Hatfield Hall, Stanley Hall and Ivy House.



Overcrowding still persists in this hospital in spite of the recent transfer to other statutory care of 70 patients at the end of last year and a further 110 last month. There is a deficiency of accommodation by day for 125 men and 54 women and by night for 56 men and 30 women.

Since the last visit Hatfield Hall has been occupied by 39 of the quieter women patients and in the near future is to accommodate some 90 women as voluntary patients. Additional accommodation was also provided for 20 men enjoying parole when the Crichton-Browne ward was opened last June. During our visit to the outlying group we were shown Field Head, the Medical Superintendent's old house, being converted into a farm workers' villa. This villa promises to be very attractive and should be completed by Whitsun for occupation by some 35 to 40 patients.

There are about 190 mentally defective patients among many others here who according to the medical staff would be more suitably accommodated elsewhere. When it has been found possible to find such accommodation, we hope, from every point of view, that their removal will not be delayed.

The wards are well kept and clean and fairly well decorated, but generally are of a drab appearance, partly owing to the type of furniture and pictures. In some wards, such as F.3, difficulty is experienced in keeping a suitable temperature, due to the presence of the open grids of the now disused plenum ventilation system.

Various replacements and renovations of equipment in different departments of the hospital have been carried out, including in the acute block the provision of a cold room and a food mixer in the kitchen.

There is a central library where many patients can choose their books, and a good supply of periodicals and newspapers is to be found in the wards. The supply of books in all the wards is meagre and in some instances there are no bookcases. Sometimes it may be between 3 and 6 months before these books are changed, so we would like to see introduced a system whereby the number of books is increased and more frequent changes made.

Four hundred and fifteen patients (150 male, 265 female) enjoy parole within but not beyond the estate and 59 men parole outside the hospital estate. Parties are escorted to pantomimes and to theatres. Entertainments are given for the patients on several nights of the week in the entertainment hall and consist of whist drives, dances and 2 "talkie" cinema performances, 1 being for the quieter patients.

Steps have been taken to modernize the patients' clothing and so add to their self-respect and comfort. In the women's workroom some pretty dresses made to measure and of the patients' own choice were exhibited, while the Clerk and Steward showed us some much improved shirtings and suits of grey flannel for the men. No pants are issued but, instead, the men's trousers have sewn-in linings. After consulting the laundry figures and bearing in mind complaints from some patients, we consider that both from the point of view of warmth and hygiene this form of garment must be unsatisfactory and it is hoped that it will be found possible to issue pants. The supply of overcoats for the patients is limited, only 33 per cent. of the male patients being provided for. In some of the wards, especially in wards 9 and 12, there was a considerable shortage of bath towels and in ward 2 of the main block, containing 82 patients, the stock list disclosed only 40 such towels, while the laundry lists for the previous 2 weeks only showed 29 and 35 respectively as having been sent.

The dietary, which we gather has been under consideration for a considerable period, is arranged on a 2-weekly rota and provides only 1 pudding per week unless it is supplied as an extra item by the patient's medical officer. We have no doubt that the Committee of Visitors, in their study of this important aspect of the care of the patients, will be anxious to consider the recommendations made by the Departmental Committee on Mental Hospital dietaries in 1924 in which the advantages of a 4-weekly rota are to be seen.



We should like to know that some variation in the flavouring of minced meat is secured, as some patients are supplied with meat in this form on several days of the week. New portable tea infusers have been obtained which give promise of a more fragrant and hotter cup of tea than formerly. After the experimental use of 3 varieties of food containers for distribution to the wards, 20 such containers have been ordered and a new food motor van will shortly be available for conveying meals to the outlying establishments as well as round the hospital itself. There is no special provision for heating of plates in any of the wards. The central kitchen of the main block presents a dilapidated appearance and hence adds to the difficulties of keeping the kitchen clean. A regular issue of cigarette papers would probably prevent the misuse of toilet paper for this purpose.

Two wards on each side of the main block are reserved for patients who have suffered from intestinal infection and, on the men's side, for a few cases of tuberculosis. In ward 21 there are 7 women who are persistent excretors of typhoid bacilli, all but one of these patients are at the moment under care in bed. The linen from this ward, after use, receives the particular attention necessary. These 4 wards greatly need a device for the cleansing and sterilizing of bed pans as well as metal frames for storing the pans in place of leaving them on the floor. The w.c.'s in the women's segregation ward No. 22 are particularly in need of attention, some having fixed seats, the underside of which, therefore, cannot be cleaned. At least one of these w.c.'s is very dark and ill ventilated.

During the recent prevalence of influenza 110 patients have been affected and 41 are still under treatment. Since the last visit, 9 months ago, 16 fresh cases of tuberculosis have arisen, 13 of which were pulmonary. Eight men and 11 women are at present receiving special treatment for this disease, the men being in 2 groups, 1 of which is nursed by women staff; the other group is nursed among the men who are segregated because of former intestinal infection. Three recurrent cases of dysentery reappeared in the segregation ward last summer, 2 being due to Flexner V and 1 to W. The careful routine examination of new patients resulted in the detection in the laboratory of a typhoid carrier only 4 days after admission last October.

At present some 10 per cent. of the men and 19 per cent. of the women are confined to bed and are evidently in receipt of efficient and considerate treatment. An increase in the issue of bed-jackets would probably be appreciated. Casualties of a more or less serious nature have occurred to 5 men and 14 women. Ten of the latter and 4 of the men were bed patients at the time of their accidents: their ages ranged from 26 to 89.

It was with much interest that we learned that patients admitted from out-patient clinics into the hospital are treated by members of the medical staff who first examined them at the clinic; this is a kindly and well co-ordinated effort to secure continuity of treatment and to avoid unnecessarily repeated exploration of the patients' symptoms.

There is a comprehensive range of specialists' services, provision having been made for a monthly visit by certain surgeons and for a visit by others when requested. The dental surgeon visits 1 half day a week. Yesterday afternoon a patient collapsed and was found to have a perforated gastric ulcer. It was operated on by the consulting surgeon without delay and the patient was back in bed within 4 hours of the onset of his illness.

Having seen some of the X-ray films and apparatus we trust the installation of an efficient X-ray plant will not be long delayed. Malarial inoculation in the treatment of general paralysis has not yet been introduced here on account, we understand, of the shortage of space for providing specially screened rooms; a lack which, we hope, can be remedied in the near future.

There is much activity in the use of occupations in the amelioration of the mental condition of a number of the patients and much ingenuity is exercised in devising various kinds of handicrafts. Three rooms are used as centres for



instruction, 1 hut for women receives fresh groups of patients every hour : by this means about 100 patients are treated through the day : they have physical training interposed on alternate days. There are 2 such centres for the men, each accommodating about 15 patients. These 3 rooms are far too small to meet the needs of the hospital. We have seen elsewhere entertainment halls used for dealing with large classes and in this way the education of the nursing staff in various handicrafts has been greatly facilitated. There are considerable numbers of patients in many wards who have no opportunity, so far, of benefiting from this form of treatment. While the instruction in the centres is largely directed at the production of articles of utility for the hospital, we would emphasize the value of skilfully supervised occupation as a form of medicine because, even when the products are of little intrinsic worth, the advantage to the patient of the effort and co-operation required on his part will have been of incalculable value towards convalescence. On such grounds we would recommend the consideration of the means for extending this beneficent medium of mental treatment and of kindred training by means of physical exercises.

The death rate for the year 1936 was 69·8 per thousand resident. Since the last visit 148 patients (73 male, 75 female) have died, of whom 33·6 per cent. were aged 65 or over. There was an absence of bed sores in all these cases. Post-mortem examinations were held in more than 60 of the deaths. Cardiac or renal disease accounted for more than 45 per cent., general paralysis, organic brain disease or exhaustion for 22 per cent. in all. Eight patients died from tuberculosis and 1 from dysentery. Four deaths were the subject of inquest, 2 being found to be due to natural causes, 1 to suicide and the other to chronic nephritis accelerated by fracture of the femur through falling on the floor.

The present nursing staff consists of

				Male Side.		Female Side.	Total.
				Male Staff.	Female Staff.	Females.	
Charge	...	...	...	24	12	48	84
Ordinary	...	...	...	137	27	162	326
Night	...	...	...	22	7	35	64
				183	46	245	474

Of the men nurses 52·3 per cent. are certificated and 12·4 per cent. others are registered, the corresponding figures for the women nurses are 15·8 per cent. and 1·7 per cent. More than half the nurses on day duty in the women's section of the acute block on the second day of our visit were probationers, and the staff at Stanley Hall and in F.6 ward was somewhat reduced by sickness, there being only 4 nurses on the afternoon shift for 115 patients in the latter turbulent ward.

We have to thank the Medical Superintendent and his staff for so kindly and quickly providing us with the various statistical and other information which we required during the course of our visit.

## YORKSHIRE (WEST RIDING) MENTAL HOSPITALS.—2. WADSLEY.

March 19th, 1937.

To-day we have completed our visit to this hospital and have found that progress continues to be made in all directions. In the absence of the Medical Superintendent we were accompanied throughout by Dr. Thorpe and by the several medical officers in their respective divisions. It was with satisfaction we noted the many structural improvements and additions which have been recently carried out.



According to the statistics placed before us there were during 1936 :—

	Voluntary.		Temporary.		Certified.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Direct admissions ... ..	88	94	27	51	196	187	311	332	643
Departed or discharged ...	79	84	16	23	75	118	170	225	395
of whom had recovered	48	56	10	17	67	105	126	177	303
Allowed out on long leave or trial ... ..	—	—	—	—	80	124	80	124	204
Number to whom granted money allowances ...	—	—	—	—	41	31	41	31	72

It is gratifying to note from the above figures the high proportion of the recoveries as well as the continued appreciation of the advantages to be obtained from the Mental Treatment Act, 1930, especially the large number of patients admitted on a temporary basis.

Out-patient clinics are held weekly at Alma Road Hospital, Rotherham, and at both the Royal Infirmary and at the Royal Hospital, Sheffield. It is with satisfaction that we learned of the decision to appoint a social worker, and we feel sure that the services which are rendered both at the out-patient clinics and in investigating the homes of patients about to proceed on leave or trial will be of great value.

There are in residence 2,204 patients (1,047 men and 1,157 women) of whom 132 (78 men and 54 women) are voluntary and 24 (10 men and 14 women) are temporary. Twenty patients (11 men and 9 women) are away on long leave or trial. Private patients number 79 and of these 56 are service or ex-service patients.

Overcrowding at this hospital is on the increase and its consequent handicaps are becoming more noticeable. There is a deficiency of accommodation by day for 68 men and 130 women and by night for 59 men and 44 women.

Some 400 mentally defective patients are in residence here and Dr. Thorpe informs us that about 25 per cent. of them would be, from every point of view, more suitably accommodated elsewhere. We hope that when the required alternative accommodation can be provided their removal will not be delayed. These patients, however, although they receive every care and all the training that is possible under the circumstances, must by their inevitable contact with adult mental patients suffer some detriment.

The weekly maintenance charge per head for home patients is 21s. 7d. and that for private patients 26s. 10d. The average weekly cost as last ascertained is 21s. 10½d.

The wards of the hospital are well kept and everywhere there was a good supply of flowers and plants; a gardener has been allotted the special duty of ensuring that the wards are well provided. Redecoration of the wards is by rotation throughout the hospital, and they are generally bright and cheerful, but there are some wards and their side rooms, more particularly on the male side, which call for earlier consideration. In ward 11 the decorations and the posters which have replaced the pictures are very attractive, so we hope that this scheme will be repeated. New composition flooring has been laid in many of the wards and dormitories which has added both to the cleanliness and safety of the floors.

During the course of our visit we noticed that steps have been taken to modernize the patients' clothing, and it was pleasing to see many women in up-to-date dresses, while on the male side care had been taken to see that the men's suits fitted well. There is a steam clothes press in the laundry and another is to be installed in the tailor's shop, while coat hangers are to be provided throughout the hospital. Space for hanging clothes is in some wards limited, but we feel that in 1A villa and in the Farm villa such accommodation could be provided on the ground floor. This would help both to



ventilate and to keep the overcoats in better condition. We would add, however, on the male side there appears to be a shortage of overcoats for the men who may go out of doors.

The extension to the laundry has been completed and the installation of the steam disinfecter and other equipment is nearly ready for use; a mess-room has now been provided for the use of the staff.

Two tennis courts and a bowling green are being made for the patients who are resident in the Admission Hospital and in the adjacent convalescent villas. This, together with the laying out of the new gardens, will add to their already pleasing surroundings.

The relationship between patients and staff is good. The patients' indoor amusements and recreations are well catered for and the wards have a good supply of newspapers and books. Among the outdoor recreations there are football for the men and hockey for the women.

Sixty-six men and 11 women enjoy parole within the hospital estate and 54 men and 7 women beyond it.

The patients, except in a very few instances, were remarkably quiet and free from complaints. Three patients were given private interviews, two of which were requests for discharge or leave and the other consisted of complaints which were of a pronounced paranoidal nature.

During the course of our visit to the main block we paid careful attention to the ward sanitary annexes where we noticed improvements had been made in that many water closets and their seats had been replaced with new ones. In some wards we compared the number of patients with the number of available water closets, which prompted us to ask for a list of the wards showing the number of patients together with the number of closets and urinals. We feel sure after consulting these data that there are some wards where lavatory conveniences would be improved if consideration could be given to providing increased facilities where practicable. The installation of hot and cold water basins in some wards of the hospital itself and in each main dormitory of the admission hospital would be an asset. In particular in wards 3A, 3B, 17A and 17B it would be most beneficial to both the medical and nursing staff.

Infectious illness has been little in evidence save for some 5 cases of dysentery on each side which occurred last summer and autumn in 4 male and in 2 female wards. Eleven fresh cases of tuberculosis have arisen and there are at present 62 patients under treatment. Dr. Thorpe has furnished us with particulars of the distribution of these patients at the time of onset of this disease. While certain wards figure more prominently in this list it would appear that the main reason therefor is the more susceptible type of patient they contain. The recently installed X-ray apparatus has proved of valuable assistance in the detection of the tuberculosis lesion. The active or open cases of this disease are accommodated in the special hospital under open air conditions and are very well looked after. Thirty-one men and 18 women who are regarded as closed cases of phthisis are living in other wards of the hospital.

Erysipelas has attacked 6 men and 5 women, 1 of the former being still under treatment. Four women are segregated at present while undergoing treatment for scabies. One case of pellagra has arisen. The recent outbreak of influenza has affected 126 men and 117 women: 10 of the latter are still ailing.

During our visit about 9 per cent. of the men and nearly 14 per cent. of the women were under treatment in bed; the account given of their cases satisfied us that the care and treatment is of very high standard. The facilities for the application of the advantages of recent progress in medicine are greatly enhanced by the equipment in the new admission unit. The special treatment of the unfortunate sufferers from the effects of encephalitis



lethargica in the pleasantly situated male detached infirmary is highly advantageous. One part of this building is reserved for the 5 known carriers of dysentery.

The reports which we have seen for the year 1936 of the services of the consulting staff record a considerable amount of valuable treatment.

Among the therapeutic activities of the hospital the use of physical exercises is an important one. The men wear a gym outfit and the costumes in which the women undergo this training are of a particularly tasteful design. We saw patients of both sexes taking part in their respective exercises with evident co-operation and enjoyment. We trust the frequency of this treatment will be much increased.

While the patients' kazoo bands may not have attained high orchestral merit they have achieved an extraordinarily useful purpose in the wards which they serve; in the gardens many patients step out briskly behind the music who might otherwise be entirely idle. We are glad to find single occupations within the mental reach of the patients concerned followed in the wards especially on the men's side.

The central handicraft hut is much too small for this valuable restorative function, and we are pleased to know that larger premises are being prepared. The crafts taught in this hut are well varied and nurses attend in rotation for instruction. We learn with much interest that the extension of the facilities for occupational treatment in this hospital is under consideration.

During 1936 the death rate for the hospital was 80 per thousand; the average rate for all mental hospitals was 68. In this connection we find that 55 per cent. of the 169 deaths which have occurred since the last visit 10 months ago have been those of patients over the age of 60.

Post-mortem examinations were conducted in nearly 74 per cent. of the deaths. Cardio-vascular disease accounts for about a third, pneumonia for 35, general paralysis for 13 and epilepsy for 8; both these diseases are present here in higher proportions than the average. Six men and 3 women have died of tuberculosis and 2 men from dysentery. The deaths of 3 men and 3 women were the subject of inquests, and in addition at the time of our visit an inquest was being held. Three of these 6 patients died of natural causes and in 3 other cases death followed a fracture of the femur due to an accidental fall.

The major casualties since the last visit are 21 in number. One patient of 81 dislocated her shoulder while in bed. Seven men and 13 women have sustained fractures; 14 were due to slips, 2 each to excitement and 1 to a kick from a cow. The cause of 1 is unknown. The ages of these patients range from 19 to 81 and 2 of the men and 10 of the women were over 60.

We are glad to learn in connection with the hospital's dietary that the West Riding Board has passed a recent resolution increasing the allowance for provisions for patients to 3s. 8½d. per week. An opportunity will thus arise for the institution of a 3 or 4 weekly rotation of menus which will permit of the addition of occasional homely dishes which are usually much appreciated, as well as a regular issue of fresh fruit in winter.

A study of the special diets shows that careful attention is given to the needs of the sick and that the delivery of fish is sufficiently frequent. Some arrangement might be made for variation in the flavouring of the mince diet.

Visiting the farm we saw a well-groomed herd of cows which yield daily a supply of milk equivalent to about two-thirds of a pint per patient. The milking and dairy arrangements are conducted on soundly hygienic lines.

The ward nursing day duties are arranged in 2 shifts, the first being from 6 a.m. to 2 p.m. and the second from 2 to 10 p.m. The entire day staff consists of 177 men and 176 women nurses and the numbers on duty on the night of March 15/16th were 21 and 23 respectively. Ten women nurses are employed on the male side.



One hundred and one men and 61 women nurses are certificated and 8 men and 1 woman are also registered. In addition 96 nurses have passed the preliminary examination for the nursing certificate.

We feel indebted for the help and courtesy shown us throughout our interesting visit.

# YORKSHIRE (WEST RIDING) MENTAL HOSPITALS.—3. MENSTON.

January 15th, 1937.

To-day we have completed our visit here which we started three days ago and have noticed with satisfaction that progress has been general throughout this hospital.

During 1936 there were :—

	Voluntary.		Temporary.		Certified.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Direct Admissions ...	46	49	10	14	137	178	193	241	434
Admitted on transfer ...	—	—	—	—	4	8	4	8	12
Departed or discharged (excluding transfers) ...	34	42	6	5	65	92	105	139	244
Of whom had recovered	15	29	4	2	31	55	50	86	136

It is gratifying to note the increased number of voluntary and temporary admissions compared with previous years which evidences the increased appreciation of the advantages of the Mental Treatment Act, 1930. Dr. Walker holds an out-patient clinic at the Bradford Infirmary weekly, and here, during 1936, 94 new cases attended and the total attendances for the year was 304. The advantages of this clinic could be furthered still more if a social worker were appointed whose services would also be of material assistance in acting as an additional link between the patients in the hospital and the homes of their relatives or friends.

There are now the names of 2,009 patients on the statutory books and we believe we have seen and given all these patients opportunities to make any statement with the exception of 6 certified patients who were either out on long leave or trial.

Overcrowding, which has been referred to in previous reports, still continues and is slightly on the increase as there is a deficiency of accommodation by day for 51 men and 113 women and by night for 34 men and 123 women.

An admission hospital and 2 convalescent villas are to be erected very shortly which will, besides being a much needed addition to the hospital itself, tend to lessen some of this overcrowding.

The wards of the hospital are generally well kept and clean but on the male side the appearance is dull and lacking in comfort owing to the scarcity of easy chairs, couches and rugs for the floors. There is a plentiful supply of books in the central library and those in the wards are changed weekly but we feel a more liberal supply in some wards would be appreciated.

During our tour we visited the farm residence where everything was pleasing and satisfactory with the exception in the dormitory of the necessary key and glass box for the fire escape door.

New washing basins and water closets have been installed in some of the sanitary annexes; these are essential improvements and we are interested to learn that all the sanitary annexes in due course are to be so modernised.

The patients are quiet and content and only 5 private interviews were requested and all of these were based on the desire for discharge.

The relationship between patients and staff is good and it was pleasing to notice that efforts have been made to improve the standard of clothing, and so the appearance, of both sexes; in connection with this the installation of a hairdressing saloon would be an asset.



Provision for occupation therapy develops steadily and we watched a number of the men patients at brushmaking and carpentry, etc., in their centre where many articles were either being repaired or made for use in the hospital.

The women's occupation centre should be completed in a few weeks but in the meantime the patients do dressmaking and sewing in a small room.

In most of the wards on the women's side the patients are unoccupied and we feel the development of such simple handicrafts as rug making, embroidery, basketry and raffia work would do much to stimulate their interest. In time it is hoped that many of the nurses will be better able to give instruction to the patients in the wards in these handicrafts from the experience they themselves should get from attending at the new occupation centre. Great interest is taken by the male patients in gardening and some very good flower beds have been planted in all their ward gardens.

Classes of physical exercises are held daily for every ward on the men's side and weekly classes in the recreation hall for the women. These classes, some of which we witnessed, are proving most beneficial and for the men includes knock-about football. The addition of music at the women's classes would undoubtedly help even if only a gramophone were to be used.

The recreation hall was beautifully decorated with artificial flowers all of which had been made in some of the women's wards.

Each week, the patients have a dance and a cinema "Talkie" entertainment and sometimes, in addition, a concert. Football has now been started for the male patients during the winter months.

At present there is a shop at the hospital where patients can buy various articles but it is now proposed to build a canteen-café next the visiting room which should be profitable and most popular with the patients. There is continuing at the moment a weekly dietary containing some variation but we understand from Dr. Walker that the West Riding of Yorkshire Mental Hospitals Board is considering the substitution of a three weekly dietary which we are told will not be long delayed and also add to the welfare of the patients.

Other amenities to be afforded the patients are a reading room for the men which is nearly completed and the same for the women at a later stage. Bedside lockers are being installed throughout admission and sick wards as well as chests of lockers throughout the hospital.

During our visit to the laundry everything was found to be satisfactory with the exception of a calendar which, for safety, requires an additional guard.

The death rate for the year ending December, 1936 was 8·8 per cent. (M. 7·99, F. 9·53).

Since the last visit there have been 114 deaths (M. 50 and F. 64) followed in 52 cases by post mortem examination. The principal causes of death were:—Heart disease (41), general paralysis (16), pneumonia (16), senile decay (10), tuberculosis (8) and organic brain disease (8). Inquests, details of which have already been submitted to our Board, were held in 2 cases, the verdict on each occasion being misadventure.

Apart from an outbreak of influenza, now prevalent in the hospital, the general health of the patients has been good. There has been an entire absence of enteric fever and dysentery. During the month 76 patients (M. 32 and F. 44) have been attacked by influenza and, at the time of our visit, 40 of these were still in bed on account of this illness. With the exception of 2 women, where the disease proved fatal, all have made or are making a satisfactory recovery.

Twenty-three patients are regarded as suffering from active tuberculosis and are undergoing open air verandah treatment.

Malarial therapy continues to be employed in all suitable cases of general paralysis. During 1936, 14 such patients were so treated with the result that 3 improved sufficiently to be discharged.



We had the benefit of discussing the clinical condition of all bed patients with their medical officer and are satisfied that these patients are in receipt of skilled medical and nursing attention. We feel, however, that nursing facilities would be greatly aided by the installation in each sick dormitory of a hand basin providing hot and cold water.

During the period under review, that is from May, 1936, there have been 12 serious casualties—all in the nature of fractures, complicated in one case by an additional dislocation. Of these 12 fractures, 9 were due to accidental falls, 1 was sustained by a blow from a fellow patient and in the remaining 2 cases the cause was undiscovered. Excepting 1 woman, whose physical condition would not permit of her being removed from her ward, all these casualties had the benefit of the hospital X-ray which is adequate for such examinations.

The nursing staff consists of 59 charge nurses (M. 29 and F. 30), 205 ordinary nurses (M. 116, F. 89) and 32 night nurses (M. 14 and F. 18). Of these, 90 men and 53 women are certificated or registered as mental nurses while 45 men and 22 women have passed the preliminary examination. The State examinations under the General Nursing Council are now taken by the staff here and 14 nurses are taking their final examination next month.

During our visit we were escorted by Dr. Walker and the assistant medical officers and we have to thank them for their help and courtesy.

#### YORKSHIRE (WEST RIDING) MENTAL HOSPITALS.—4, SCALEBOR PARK.

*November 3rd, 1937.*

At our visit to this hospital to-day we found the names of 241 patients (149 ladies and 92 gentlemen) on the statutory books. All the patients were in residence with the exception of 10 who were away on leave or trial.

During the year 1936 the direct admissions numbered 113 of whom 58 per cent. were received on a voluntary and 15 per cent. on a temporary basis. The direct admissions to date this year have amounted to 122 and of these 64 per cent. were voluntary and 14 per cent. temporary patients. Seventy-seven patients have left or been discharged this year of whom 44 are recorded as having recovered. From these very satisfactory percentages it is clear that the advantages to be gained from both sections 1 and 5 of the Mental Treatment Act, 1930, are well appreciated in the area which is served by this hospital.

According to the figures placed before us there appears to be a surplus of accommodation by day for 16 women and by night for 29 men and 10 women. The accommodation, however, to-day was not, in fact, actually available. Both on the male and female sides 1 ward and its dormitories are reserved for new admissions and the nursing of sick patients. On the male ward there is a verandah the access to which is inconvenient and difficult. We discussed with Dr. Gilmour both the question of providing an easier access here and the fact that there was no verandah to the female ward. We would also like to recommend the installation of hot and cold water washing basins in these dormitories where patients are nursed in bed.

Owing to a recent rush of admissions overcrowding was to-day noticeable in the female admission ward. Unfortunately there is little suitable accommodation for nursing noisy patients apart from the quieter ones. This we also discussed with Dr. Gilmour, who appreciated that the dormitory itself was too small to nurse all admissions together.

During the course of our visit we found all the patients happy and contented, that is as far as their mental conditions would allow. No private interviews were requested. We spoke however with 1 boy who was recently admitted here as a voluntary patient and after discussing the case with Dr. Gilmour we feel that the boy is unsuitable here and were glad to learn that steps are being taken to have him sent elsewhere.



In considering the high admission rate at this hospital we realise the amount of time that the medical staff devote to the examination and treatment of newly admitted and acute cases, we saw much evidence of the care and consideration that is given to these cases and the recovery rate is sufficient proof of the success that is obtained.

Though no consultant staff to the hospital has been appointed, visiting specialists are called in when required and consultations are frequently held with the patients' family doctors.

Only 1 serious accident has occurred since the last visit, this being the fracture of an arm in the case of an agitated female patient. The cases in bed appear to be carefully nursed and the staff in the admission and sick wards was sufficient to give the individual attention required by some of the more difficult patients. There was one matter however which we did notice more particularly on the male side and that was the lack of provision of occupations generally. No classes in physical exercises are held on either side. We would like to suggest the appointment of an officer or officers, if only part-time ones, who could organize various classes in handicrafts and physical exercises.

We have to thank Dr. Gilmour for every assistance given to us throughout the course of our visit.

YORKSHIRE (WEST RIDING) MENTAL HOSPITALS.—5, STORTHE'S HALL.

*November 18th, 1937.*

We have spent the last 2 days in visiting this hospital and, among the many matters which we discussed with Dr. Ewing, the Medical Superintendent, were the question of parole for patients beyond the hospital estate, the lack of occupation for many patients during the winter months, the value of the appointment of a whole-time social worker, and the absence of any outside organization within the hospital area for dealing with the after-care of patients.

One hundred and two men and 2 women enjoy parole within the grounds and 3 men and 4 women parole beyond the estate. Up to about June of this year many of the former group were enjoying the advantages of going beyond the grounds. This privilege was discussed with Dr. Ewing and we were pleased to hear that it is to be reinstated and the whole question of outside parole is to be re-organized.

In visiting the wards we were struck by the large number of patients of both sexes, in the acute as well as in the chronic divisions, who were idle and unoccupied. We appreciate the fact that it is now winter and that during the summer months many men, now unemployed, would be busy working in the extensive and beautifully kept gardens and woodlands here. Nevertheless we feel that greater provision could be made for stimulating the interest of patients in a natural and constructive manner. At present 2 rooms are set aside on the male side (1 in the acute division) and 2 on the female side (1 over the sewing room and the other in female ward 9) where handicrafts of a limited nature are carried out under the direction of an attendant and nurse respectively. In addition, an outside central occupation hut is at present in course of completion. When this is ready it is to be hoped that renewed efforts will be made to engage the attention of backward and deteriorating patients not only in the making of handicrafts of a utilitarian value for the wards but also in the making of attractive articles for general domestic, social and decorative purposes. We know that the pleasure derived from making simple articles of no particular commercial value has a definitely therapeutic effect on the patient.

Allied to occupations are classes in physical exercises; these are a further means of promoting the spirit of co-operation. Here, weekly classes are held in Swedish drill and figure gymnastics to the accompaniment of music. This is an excellent measure but we hope it may be possible gradually to increase the number attending these classes and to hold classes more frequently.



Environmental factors are of considerable importance in the treatment and discharge of patients. A social worker takes up the duties not only of assisting at out-patient clinics but in investigating the homes of patients about to be discharged or sent on trial. In some cases this officer can act as a link between the patient and the previous employer with a view to keeping a situation open or finding fresh employment elsewhere. The various data so collected may allow a patient to leave the hospital at an earlier period than otherwise would have been possible. This hospital has the part time services of a social worker and, in view of the size of the hospital and number of direct admissions, we would like to recommend that consideration should be given to making a full time appointment.

Unfortunately there is no recognized outside organization for dealing with the after-care of patients discharged from this hospital. Dr. Ewing discussed this matter with us and was of the opinion that if such an organization existed it would expedite and simplify some of the problems of discharge.

An out-patient clinic is held twice weekly at this hospital and weekly out-patient clinics are held at Huddersfield and Halifax. A further clinic we are informed is in the near future to be opened at Barnsley.

For the year 1936 and for the current year (10½ months) the direct admissions have numbered 290 and 267 respectively. Ten per cent. of the former and 14 per cent. of the latter were received on a voluntary basis and 2·7 per cent. and ·75 per cent. were sent here as temporary patients. The proportion of voluntary and temporary patients is in each instance low, and according to information provided us no public assistance institution has contributed to these figures. Dr. Ewing told us he has previously taken steps whereby the area served by this hospital should not be without explanation as to the advantages to be gained from both Sections 1 and 5 of the Mental Treatment Act, 1930. We hope that he will be able to get an opportunity of again circularising the several medical practitioners and relieving officers concerned.

There appear on the statutory books the names of 2,288 patients (1,053 men and 1,235 women) of whom only 41 are on a voluntary basis. The private patients number 91 and of these 53 belong to the service and ex-service class. We believe we have seen all these patients, with the exception of 8 out on leave or trial, and have spoken with many. The relationship between patients and staff is good and an atmosphere of quiet was noticeable throughout the hospital. Five private interviews were given, each being based on either requests for discharge or transfer to other hospitals.

The weekly maintenance charge per head is 26s. 10d. for private and 21s. 7d. for home patients. The average weekly maintenance cost as last ascertained is 20s. 0½d.

Many alterations and additions have been completed since the last visit on behalf of our Board some 15 months ago. First among these has been the completion of the extensions to the nurses' home, which consist of a dining-room, 2 sitting- and reading-rooms, and 42 single bedrooms with built-in wardrobes and hot and cold water washing basins. This has permitted blocks 23 and 24 to be occupied by 110 female patients. Among the major works in progress is the conversion of male staff quarters into additional and adjoining accommodation for the patients in male ward 6. According to the total accommodation figures placed before us there are now vacancies at this hospital by day for 139 men and 149 women, and by night vacancies for 10 of each sex. A central canteen has been opened and a system of tokens varying from 2d. to 6d. in value has been introduced for working patients. Both these innovations here are much appreciated.

The patients' indoor amusements and out-of-door recreations are well studied. The work in the enlargement of the sports field is nearly completed and will provide ample room for cricket, football and hockey.

In each ward there is wireless and a good supply of books which are changed fortnightly from the hospital central library where a stock of some 8,000 books



is available. Most wards have a suitable issue of daily papers but there are no Sunday papers. Some wards would appreciate a large issue such as the convalescent wards.

This year an experiment was made in taking 2 parties of patients, one of 30 men and the other of 30 women, to the seaside at Redcar for a fortnight's holiday. This, we were informed, was in every way a success and we hope that it will be found possible not only to continue but to extend the joy of such holidays to many more.

The day-rooms and dormitories are well kept and, in most cases, in a good state of decoration. We would like to suggest, however, for improving the general comfort of the patients, the addition in some wards of a more comfortable type of furniture in the way of couches and easy chairs. We were pleased to learn from Dr. Ewing that steps were taken to replace many of the older pictures with ones of a brighter nature and in some cases with coloured posters.

The patients are suitably and well dressed and it was noticeable on the female side that care has been taken to see the dresses fitted properly. On the male side, however, the suits presented rather a depressing effect chiefly, we think, because there is no steam press in the tailor's shop with which to press the suits from the laundry into shape.

The dietary is on a 4-weekly basis. It appears fair, well balanced and varied, but we would like an addition consisting of fresh fruit issued at least weekly.

The death rate for the year ending December, 1936, was 8.9 per cent. (9.2 men, 8.6 women). At first sight this appears rather high but is explained by the large percentage of old and debilitated patients here. The number of deaths since the last visit has been 275 (134 men, 141 women) followed in 37 per cent. of cases by post-mortem examinations. Among the principal causes of death were: heart disease (76), senile decay (55), pneumonia (30), organic brain disease (26) and kidney disease (20). Five inquests were held but details of these have already been forwarded to our Board.

Apart from an outbreak of influenza in the early part of this year, the general health of the patients has been good. Mild outbreaks of dysentery (Flexner Y) still occur from time to time and give cause for anxiety. There are no active cases now in the hospital but 1 female patient is suffering from enteric fever. On both sides of the hospital, wards are set aside for patients who suffer from, or are known to have at any time suffered from dysentery or enteric fever. Periodic bacteriological investigations are carried out on these patients and precautions are taken to prevent the possible spread of infection by excreta.

Throughout the hospital no hot water is laid on to the washing basins nor are there any running water basins in the dormitories. We feel that hot and cold water basins at any rate should be fitted in all the sick dormitories. This would greatly facilitate present nursing arrangements.

During the period under review there have been 23 casualties of which 22 were fractures and the remaining 1 a dislocation. Thirteen of these accidents were caused by accidental falls, 9 occurred during struggles with other patients, and in 1 case no cause could be ascertained. Most of the casualties had the benefit of X-ray examination. The present apparatus here is regarded as out of date and a new shock-proof one is to be installed shortly.

A visiting masseur spends two forenoons weekly here and not only treats selected patients but also instructs the nursing staff in the proper use of massage.

There is a trained assistant in the well-equipped laboratory where a good deal of work is done under the direction of the medical staff. Detailed investigations are carried out on all admissions. Much routine work is done in connection with former dysentery and enteric patients. At present investigations are being made into the blood urea content in connection with somnifaine treatment. Permanent records are kept of all pathological examinations on each patient by an excellent card-index system.



The nursing staff consists of 94 charge nurses (44 men, 50 women), 232 ordinary nurses, (100 men, 132 women), and 45 night nurses (18 men and 27 women). Of these 116 (89 men and 27 women) are certificated or registered as mental nurses, while an additional 43 (23 men, 20 women) have passed the preliminary examination.

We have to thank Dr. Ewing and the assistant medical officers for their assistance and courtesy throughout our visit.

YORKSHIRE (EAST RIDING) MENTAL HOSPITAL, BEVERLEY.

*May 25th, 1937.*

The prevailing impression left upon us as a result of our visit to this hospital is that an atmosphere of homeliness and contentment exists throughout and that the relationship between staff and patients is one of kindly understanding and care.

During the year 1936, there were 95 direct admissions, of whom 28 and 6 consisted of patients received on a voluntary and temporary basis respectively.

It is of interest to record the appreciation in this Riding of the advantages offered by the Mental Treatment Act, 1930. Approximately 29 per cent. of the direct admissions, as was the case in the year 1935, were voluntary patients and approximately 6 per cent. were received on a temporary basis compared with 1935, when only 1 such patient was admitted.

There appear on the statutory books the names of 641 patients (315 men and 326 women) of whom 17 (5 men and 12 women) are voluntary patients and 1 (a woman) is a temporary patient. Included in these figures are 29 private patients, 13 belonging to the service or ex-service class, and also the out-county patients who consist of 78 men and 30 women.

These patients, excepting 4 who were away on leave, were all in residence and had opportunities of approaching us and of making any statements if they so desired. No private interviews were requested.

According to the statistics placed before us there is overcrowding at this hospital only on the male side and that merely to the extent of 7 by day and 10 by night. On the female side there is a surplus of accommodation for 5 by day and for 20 by night.

The weekly maintenance charge per head for home patients is 19s. 3d. and that for private patients varies between 28s. and 52s. 6d. The average weekly maintenance cost as last ascertained is 18s. 8½d.

The day-rooms and dormitories are well kept and present a comfortable and bright appearance; a good supply of flowers and pot plants were found on both sides. Each ward has its wireless, newspapers, weekly periodicals, games and books. As regards the latter item we feel that a larger reserve would be advantageous and this would allow of more frequent changing of those in the ward book-cases. In one of the dormitories of ward F.1 we noticed that some of the wire mattresses were in need of attention but understand that beds are to be condemned and replaced by more modern ones.

The ward gardens on the male side are well looked after and have many attractively planted flower-beds. On the female side, however, there is a lack of flower-beds and the garden which is used by the patients from wards 2, 6 and 7 would be much improved not only by the laying out of flower-beds but also by more general attention.

The ventilation in the kitchen has been improved since the last visit and that of the laundry, where more machinery has been installed, is being overhauled and corrected.

A hairdressing establishment, fully equipped, has been opened on the male side and one for the female patients is in course of construction. Many other alterations and improvements are in process of being carried



out amongst which are the building of a separate dining hall for parole patients and new workshops. These additions should prove a definite acquisition to the hospital.

Thirty-two men and 7 women enjoy parole beyond the estate and an additional 24 men have parole within the grounds.

The patients' amusements and recreation are well catered for and a dance and a cinema performance are held each week. We discussed with Dr. Davie the question of installing a talkie cinema apparatus and he was hopeful that this would be accomplished in the near future. A further question we discussed was the provision of a canteen which, if it is found possible to provide, should be a great benefit to the patients and their visitors alike.

The patients' suits and frocks are well made and suitable and it was interesting to note that a start has been made in using coat hangers on the male side. This practice when universal throughout the hospital should facilitate the care and add to the general appearance and length of wear of these garments. We would like to see, as an issue for the younger and more sensible patients of both sexes, underclothes of a more modern type. Individual marking might also be started for the clothing of the better behaved patients.

In walking round the ward gardens we were struck by the large proportion of patients, especially on the female side, who were seemingly idle. There is scope here for a great extension of the use of occupations. At present a limited number of handicrafts are carried out in various wards, but there is no proper occupation centre or officer and no systematic grading of work so that the more retarded patients may be tried on simple tasks.

Physical training classes are held twice weekly for a group of men and once weekly for a group of women. This important method of re-learning co-operation with one's fellows might be further encouraged by more frequent classes and, for the women, by the introduction of variety along the lines of music accompaniment, ball games and country dances.

At the time of our visit there were 41 men and 90 women being nursed in bed. These figures represent 20 per cent. of the total patients in residence. This is a much higher percentage of bed patients than the mean for all mental hospitals, but is explained by the large proportion of senile patients here and by the fact that a prolonged stay in bed, after admission, is one of the lines of treatment at this hospital. We had the advantage of discussing individual cases with Dr. Davie and his colleagues and are satisfied that all patients are in receipt of skilled medical and nursing attention.

The nursing facilities could, however, be greatly increased by the addition of wash-basins in those dormitories where such patients and recent admissions are being nursed. We understand that some of the sanitary annexes are to be reorganized and must emphasize the necessity for extra water closets in male ward 2 which is already in process of being reconstructed. The present number of available water closets here is 3 for 59 patients.

The hospital has been entirely free from enteric fever and dysentery for the past year. Apart from an outbreak of influenza affecting 89 patients in January and February, the general health has been good. There is no patient known to be suffering from tuberculosis.

The death rate for the year 1936 was 7.7 per cent. (M.8. 3; F.7, 1). Since the last visit 8 months ago there have been 33 deaths followed in all but 1 case by post-mortem examinations. The chief causes of death were—heart disease 9, organic brain disease 7, and general paralysis 4. All deaths were from natural causes.

During the period under review there have been 4 serious casualties; 3 were fractures resulting from accidental fall and the fourth was a self-inflicted severe laceration of the fore-arm by a patient thrusting his hand through a glass panel in a door.



The present nursing staff consists of 13 charge (7 M., 6 F.) and 64 ordinary (33 M., 31 F.) nurses. Thirty-eight (M. 30, F. 8) are certificated or registered as mental nurses, while an additional 26 (M. 11, F. 15) have passed the preliminary examination.

To Dr. Davie our thanks are due for much helpful assistance throughout the course of our visit.

CITY OF BIRMINGHAM MENTAL HOSPITAL.—1. WINSON GREEN DIVISION.

*January 20th, 1937.*

This mental hospital, which stands within extensive grounds of its own not far from the centre of the City of Birmingham, contains at the date of this report 517 male and 601 female patients whose names are upon the statutory books. Of these 2 female patients at the date of our visit were absent on long leave or trial. We have, we believe, in the course of yesterday and to-day, seen all those in residence and conversed with a number of them; in two cases we granted private interviews. We consider that the patients receive kindly care and skilled medical and nursing attention, and we were particularly impressed by the good relationship which appeared to exist between the nursing staff and the patients themselves.

We are glad to note that the number of voluntary patients now in residence is 21 as compared with 16 at the date of the last Commissioners' visit, and to find that 3 temporary patients are receiving treatment as compared with none at that date. During the year 1936 27 of the 241 patients admitted were received upon a voluntary basis and there were 6 admissions upon a temporary basis.

There are at present vacancies, having regard to the space allowance prescribed by the Board, for 27 women by day and 9 by night. On the male side, however, there is overcrowding to the extent of 17 patients by day and 56 by night.

In the wards we were impressed by the care and attention which has been paid to their decoration by the use of brightly coloured railway posters and of artificial flowers. We are glad to hear that the question of the provision of lockers for all such patients as can use and appreciate them is receiving consideration. In those wards in which they have already been provided we are satisfied that their therapeutic and practical value is considerable.

The conversion and modernization of the sanitary spurs to the wards in the main block continues and, we hope, will before long be completed.

The dormitories we observed to be, without exception, clean and tidy. Every part of the hospital or its ancillary premises, which was in ordinary use by the patients, we found to be well ventilated and heated to a comfortable temperature. Those patients whom we met in the ward gardens were clothed in suitable garments.

We were informed that it is proposed at some future date to enlarge the kitchen premises in the main block; we consider this desirable and hope that the date will not be too far distant.

Precautions against fire and education in the necessary steps to combat it receive regular attention from officers of the Birmingham City Fire Brigade. Each member of the nursing staff whom we examined upon this subject appeared thoroughly to understand his or her duties in the event of an outbreak.

Ample provision, in our view, is made for the entertainment of patients. Talking pictures are exhibited weekly and are well attended. There is a large central library containing a wide range of literature which is supervised by members of the 'Toc H' Association and all the wards are well supplied with books and daily papers.

In the day-room of Male Ward 3, which contains a billiard table, what is known as the male patients' 'Club' meets nightly and continues until 9.30 p.m. Any male patient who is suitable for, and capable of enjoying, this privilege



can find there both congenial society and the relaxation afforded by games and competitions in draughts, dominoes, cribbage, cards of all kinds, table tennis and other pursuits. We understand that no refreshment is served to patients between tea at 5 p.m. and breakfast at 8 a.m.; we suggest that those attending the club meetings should be supplied with, for example, a cup of cocoa during the evening.

Among the completed alterations since the last visit we observed the erection of a shelter in the ward-garden upon the female side in the main block. We would suggest a similar provision in the female annexe ward garden. At the time of our visit alterations were being effected on the ground and first floors of female ward 9, and the gallery in female ward 8 was being re-floored.

On going round we were pleased to see so many of the women employed at needlework in the various wards. In Winsor Green there is no central room where patients can meet to do this work, but at the annexe there is a sewing room where we saw about 50 patients all busily engaged at various types of work, some of which was of a very high standard. Many of the women had pleasure in showing us the work at which they were employed. It was pleasant to hear that some of the patients had received their instruction from the nursing staff. We hope that handicraft work will be encouraged as much as possible, as from our experience it has a very beneficial therapeutic value in many cases.

The workshops at Uffculme are a very distinct movement in the right direction, and, we feel sure, the various forms of employment which are to be started there will be appreciated by many of the patients.

The main laundry is entirely run by female staff and here about 40 patients find suitable employment. The scheme for dealing with infected and soiled linen appears to be a very thorough one.

Parole beyond the estate is granted to 95 patients, 55 of whom are men, and within the estate to 236 of whom 200 are men. Uffculme and Glenthorne are both open to the grounds as well as 'C' block which is open to the annexe grounds.

Since the Commissioners' last visit on February 27th, 1936, the general health of the patients has been exceptionally good, but at the time of our visit there was a mild epidemic of influenza which had attacked 2 male and 20 female patients, and 1 male and 2 females upon the staff. The disease was mild in character. The female patients were being treated in 'D' block, and there arrangements could be made by using the day-room to treat any additional cases, should that become necessary.

At our visit there were only 6 cases of tuberculosis of whom 3 were males and 3 were females. Of these 2 of each sex had the disease in an active form. These cases are treated by up-to-date methods in open-air verandahs. There have been no deaths from this disease since the last visit.

The numbers in bed at our visit, excluding influenza cases, were 44 males and 43 females, and the great majority of these were in bed for physical reasons. All the bed cases showed evidence of careful medical attention and skilful nursing.

We were pleased to see that two mattresses were in use by all patients who have to be treated on the floor in side-rooms.

The mortality rate for the year ending December 31st, 1936, was 4.6 per cent. (5.1 per cent. males and 4.3 per cent. females) which is very much lower than the average for all mental hospitals in England and Wales.

Since the last visit there have been 44 deaths. It is most satisfactory to know that with one exception a post-mortem examination was held in every case. The principal causes of death were heart disease (17), general paralysis (8), pneumonia (8), and cancer (3); of the males 13 of these patients were over the age of 50 and 22 of the women were over that age, including 3 over 70 and 1 over 80.



During the same period there have been 6 casualties (1 male and 5 females) of which 5 were fractures and 1 was caused by a needle which entered the patient's left thumb; of the fractures 1 was of the bones of the leg and the other 4 were connected with the upper extremity. Five were of an accidental character, and 1 was sustained whilst assisting the nurses in dealing with a refractory patient.

No inquests have been held since the last visit.

We were pleased to hear that satisfactory progress continues to be made at the out-patient clinic held at the Queen's Hospital, Birmingham.

Dr. Forsyth kindly accompanied us throughout our tour and we had the assistance in the wards of the various medical officers. We also had, during part of our visit, the pleasure of Dr. Graves's company.

CITY OF BIRMINGHAM MENTAL HOSPITAL.—2. RUBERY HILL AND HOLLYMOOR DIVISION.

*November 23rd, 1937.*

The number of patients in residence in this mental hospital to-day was returned to us as 1,607, or 761 men and 846 women. In addition 7 men and 4 women were absent upon long leave or trial: in this connection, we understand, the assistance of the social worker, who is attached to the City of Birmingham Mental Hospital, is of the greatest value. There are 73 private patients, including 49 of the service or ex-service category. The charge for their maintenance varies between £2 and £3 3s. per week, while that for home patients is £1 4s. 6d. The average weekly maintenance cost as last ascertained was £1 4s. 11.5d. per patient.

The number of direct admissions upon a voluntary basis during 1936 was 88 out of a total number of 444, and during the current year there have been 73 such admissions out of a total of 305. There were 8 admissions upon a temporary footing during each of these periods. We were pleased to observe that it was found possible during 1936 to allow 51 men and 64 women out upon long leave or trial, and that in 82 of these cases a money allowance was granted.

We have in the course of our two days' visit spoken to many of the patients in residence, and regard it as satisfactory that in no case have we received any complaint as to the quantity or the quality of the food provided for them. The dietary is upon a 4-weekly basis and such of the food as we observed and tasted was of good quality. The patients who attend the "Club," which is held between 7.30 and 9.30 p.m. in one male and one female ward in each hospital, receive a supper, no doubt very welcome, of cocoa, bread, cheese and extras. Working patients, both male and female, are provided with a bread and cheese lunch.

We cannot leave the subject of food without observing that while at Rubery Hill a hot plate has been installed in 9 of the 19 ward kitchens, at Hollymoor these facilities are lacking except in 4 instances, and the service of hot meals is, for that reason, difficult. No doubt this matter has already received the consideration of the Visiting Committee.

The clothing of the female patients is neat, tidy, and well fitting in most cases. Progress has been made in the marking of individual garments with the patient's own name, and at Rubery Hill a marking machine, operated by a patient, is now in use. A new type of nightdress is being gradually introduced.

The male patients are adequately clothed and shod, but the design of the shirts which they wear gives them, in many cases, the appearance of lacking collars, although they are provided with ties. For working purposes, no exception can be taken to their clothes.

Some 30 female patients at Rubery Hill, and approximately the same number at Hollymoor, share the task in the sewing-room of making dresses



(for staff as well as patients) and under-garments. The laundries at each hospital claim by far the largest number of women working patients, although in many wards we noticed a number of patients occupied with needlework or knitting. In one of the male wards at Rubery Hill a patient was engaged in printing designs upon a wooden shield, to be added to those which already decorate the recreation hall.

Separate wireless sets have been installed in every ward, and there is no doubt that they are greatly appreciated. In those male wards which contain patients of the less disturbed, or the convalescent type, billiard or bagatelle tables and a form of table skittles are provided. Three newspapers (including one evening one) appear to be issued to most wards. The organisation, as a library, of the stock of books at each hospital is, we understand, still under consideration.

Every day-room was well provided with flowers and plants: the tables were for small numbers of patients only, and the pictures and posters with which the walls were decorated were well selected, and attractively framed. Coat hangers are employed in several wards and in time, we are informed, will be universally used. We hope that, for patients who can be trusted with a key to them, some form of locker may eventually be installed. At present the private possessions (excluding clothes) of such patients are kept either in an open rack in a store-room, to which only the charge nurse has access, or else they must be left in a locker suitcase, kept in a similar room.

The new mortuary at Rubery Hill is thoroughly up to date and in every respect a suitable building. The viewing-room is admirably furnished, and we were told that, in several cases, the relatives of deceased patients had expressed their appreciation of it. The surrounding bank has been made into a rockery and judiciously planted.

The old mortuary block at this hospital is to be adapted for use as a bookbinders' workshop. A sterilizing plant has been acquired for use in the operating theatre here, whilst at Hollymoor the X-ray Department is being re-equipped.

Excellent work continues to be done in the laboratory. One of us discussed with the Dispenser the provisions of the Poison Rules, 1935, relating to the supply and storage of poisons and poisonous substances in hospitals. We were told, and were pleased to hear, that the Dispenser conducts a weekly inspection of all medicine and poison cupboards.

The general health of the patients since the last Commissioners' visit has been very good. There have been 76 cases of influenza, the majority being upon the male side; 15 of the nursing staff were attacked by the same disease. Otherwise no cases of epidemic or zymotic disease have occurred. At the time of our visit only 2 cases of tuberculosis were under treatment.

The mortality rate for the year 1936 was 6·5 per cent. (7·1 per cent. male and 5·9 per cent. female), which is practically the average rate for all mental hospitals in England and Wales.

During the period under review 111 deaths (58 male and 53 female) have occurred, and in 75 of these cases post-mortem examinations were held. The principal causes of death were: Heart disease 34, pneumonia 29, general paralysis 14, and cancer 6. Four inquests have been held, the circumstances of which were reported to our Board at the time, and which call for no comment from us.

Casualties reported since the last visit number 15 (5 male and 10 female). All involved fractures with the exception of 1 case where a dislocation was sustained. Three occurred during attacks by other patients, 3 in the course of epileptic seizures, 1 by climbing over a side room door, and the others by accidental falls mostly in the wards and day-rooms. This number is creditably small in relation to the number of patients in residence.

Patients in bed numbered approximately 20 per cent., but many of these were old people who were there for physical reasons. Those in bed showed



evidence of careful medical treatment and kindly nursing attention. The whiteness of the bed linen was very noticeable, and before leaving this subject we should like to express our satisfaction with the very thorough method of dealing with foul linen which is the rule at this hospital.

Malarial treatment is extensively employed in the treatment of general paralysis with good results, especially upon the physical condition of the patients.

We were very interested in the treatment of many cases by the elimination of the various sources of septic foci, both by surgical and by medical means, and were shown cases who had reacted in a surprising manner to these methods.

#### BRIGHTON COUNTY BOROUGH MENTAL HOSPITAL.

*May 21st, 1937.*

We began our visit yesterday morning by inspecting, in the company of Dr. G. H. Harper-Smith, the medical superintendent, Dr. F. H. Guppy, the deputy medical superintendent, and Mr. C. L. Clayton, the architect, the new admission hospital which is in course of erection. Good progress has been made with the work, and when this unit is completed—and it should be completed by the autumn of this year—it will be a most valuable addition to the hospital.

Since the visit of our colleagues in October last a good deal of redecoration has been carried out, and more will be done in the immediate future, while improvements continue to be made in the furnishing of the wards throughout the hospital. The most important recent addition is the erection of a shelter and covered way in the garden of female ward 5 (the infirmary ward); 24 staff cottages have also been built.

An addition which we should like to see made, and which we have mentioned to Dr. Harper-Smith, is the provision of a water-closet on the verandah of the female sanatorium ward—this should be feasible at no great cost—and the existing arrangements are not in our opinion satisfactory.

At the present time, in addition to the erection of the admission hospital, the recreation ground is being levelled, a large undertaking, but one which will add greatly to the amenities of the hospital when the work is finished.

There are at present 946 patients (367 M. and 579 F.) resident in the hospital, and this total includes 91 (26 M. and 65 F.) voluntary and 6 temporary patients: all the temporary patients are women. During 1936, direct admissions numbered 204 (79 M. and 125 F.), including 83 voluntary (33 M. and 50 F.) and 10 temporary (5 M. and 5 F.) patients. During the same period 119 patients (50 M. and 69 F.) departed or were discharged, and 51 patients died. Money allowances were granted to 4 certified patients of either sex on their discharge.

We regret that no patients are boarded out under Section 26 or Section 57 of the Lunacy Act, 1890, and we hope that this question will receive due consideration by the committee: there is some overcrowding in the hospital, and if suitable patients could be boarded out some contribution at least would be made towards solving this problem.

There is one matter to which reference has been made before in these entries to which we feel bound again to refer. This is the continued existence in this mental hospital of a considerable number of mental defectives who should without doubt be accommodated in a colony. Their presence is unfair to the other patients and makes very difficult the proper classification of patients in the wards, and we do not feel that the problem of overcrowding is likely ever to be satisfactorily solved until suitable accommodation for the mental defectives is provided elsewhere.

We saw, we believe, all the patients in residence, and found them orderly, neatly dressed, and as contented with their lot as their mental conditions permit.



Clearly, the relations existing between the patients and the medical and nursing staff are excellent, and we have been much pleased to hear of the interest taken by many discharged patients in the welfare of the hospital.

The women's clothing here is particularly good—individual marked sets of underclothing are provided for each patient, while frocks of modern and attractive design are made and fitted in the workrooms, each patient capable of appreciating the privilege being allowed to select the style and colour which most appeal to her.

The men's clothing too is satisfactory, and we were glad to see that those engaged in work in the grounds, etc., are provided with boiler suits to protect their clothes. We have, however, asked Dr. Harper-Smith to consider the provision for the younger patients of flannel trousers and tweed coats to replace the tweed suits now in use. This has been done now in a number of hospitals, and the change is one which is generally appreciated. We are glad to learn that pyjamas are being substituted for nightshirts on the male side.

Recreation receives much attention in the hospital, and we were interested to hear of an organization, on the female side, called the Nondescript Society. This club, which is run by an ex-patient, is conducted on the lines of a women's institute. There are weekly meetings which we are sure are much enjoyed, and outings during the summer. Those women patients who have parole frequently attend the meetings of the local women's institute, of which some of them are members. The female wards also have "godmothers"—ladies who interest themselves in the hospital and who each make themselves responsible for a ward—who without doubt do very much to add to the happiness and contentment of the patients.

There is an excellent canteen, well stocked and well conducted, and here we are pleased to see offered for sale, in addition to all the usual articles of food, etc. (including fresh fruit in variety), a good selection of toilet articles and cosmetics.

A point which calls for congratulation is that nowhere in the hospital are table-cloths in use. There are a large number of dark oak circular tables, but these are gradually being replaced by tables with dark bakelite tops. Everywhere small tables and chairs are provided.

We saw yesterday 350 women patients enjoying a good mid-day meal in the dining hall, and the small tables, many of them decorated with flowers, made the scene reminiscent of a large restaurant, and as little like an institution dining hall as possible.

We were everywhere impressed by the profusion of cut flowers and well-grown pot plants in the wards, and by the beautiful appearance of the ward gardens and grounds: we have seldom seen better kept turf, and it is evident that this is a matter which here receives the attention which it deserves but which so often it does not get.

The dormitories and dayrooms are generally in very good order, and all are well kept. A feature of the dayrooms throughout the hospital is the presence in them of a great number of bird cages and aviaries. The budgerigars and canaries are, we understand, very popular with the patients, many of whom take great interest in their welfare.

At Beechmont, the drawing room has recently been re-decorated and the furniture re-covered, and this fine room is now very attractive indeed.

The kitchen and laundry are well kept, but we thought the latter somewhat cramped for space, and when the additional work caused by the opening of the new admission hospital is received we think it probable that some additional ironing plant and some re-planning of the available space will become necessary.

The dietary of the patients is generous and well varied, and we are glad to know that suppers are provided, while working patients receive extra diet.



The death rate during 1936 was 4·3 per cent. on the male side and 6·3 per cent. on the female. Since the last visit 7 months ago, 16 men and 21 women have died, and in 29 cases post-mortem examinations were conducted. Among the causes of death, heart disease was the most prominent (there were 20 cases) 4 patients died of pneumonia and 2 of tuberculosis. At present 3 men and 4 women are under treatment for this latter disease, but none of the male cases is regarded as active.

One woman, whose mental condition had not previously given rise to a suspicion of any desire to injure herself, hanged herself with a scarf last February. An inquest was held on her death.

Early this year some 100 patients, mainly men, as well as 16 members of the staff, were attacked by influenza. One nurse was taken ill with enteric fever last November, and 5 women from ward 6 in December and 2 others in the following 2 months were treated for diarrhoea. No infective organism was however isolated. One woman from ward 2 has recently had a pyrexical illness without further symptoms, and so far her serum reaction has been negative for any intestinal infection.

Particular care is taken in the handling of the bedding and garments from cases that are suspected of being infectious, but it would be of substantial help in their nursing if, in male wards 5 and 8 and female wards 5, 9 and the sanatorium, there were provided apparatus for sterilizing bed-pans and urine bottles, and metal frames or other appropriate receptacles for storing them. The gradual replacement of wooden commode chairs, so difficult to sterilize after use, by metal chairs with bakelite or other seats of special composition would also be a progressive step in ward hygiene.

Although the proportion of patients under care and treatment in bed (over 14 per cent. in the case of males and 18 per cent. in the case of females) is high, we are glad to see so many of them being nursed under open air conditions. An admirable new verandah for women's beds has recently been constructed, and only awaits the completion of the electric light installation.

Fractures have occurred in the cases of 3 men and 2 women, 2 by the action of other patients, and 3 from falls. We are glad to learn that provision for X-ray apparatus will be made in the new admission unit.

One patient has recently been discharged recovered after treatment for general paralysis by malarial inoculation, and others are under treatment. Among the modes of treatment the use of physical training and occupations here find a valued place.

The former training is conducted daily, but so far no special costume has been provided: this, in many hospitals, is considered an important accessory to the treatment.

On the men's side, treatment by occupations has the advantage of a large room, formerly a dining hall, where a good variety of handicrafts is taught both to patients and nurses, 13 of whom have now been trained in this way. During the last 6 months, 9 men attending this central shop have been discharged, and 3 have been promoted to the routine services of the hospital. Many of the patients on the male side practise suitable handicrafts while under treatment in bed, and much attention is paid to the occupational needs of patients of more degraded or introverted type.

On the women's side there are occupational groups of patients in wards 1 to 4, and certain patients in other wards are instructed separately. On this side, however, the organization of occupations has met with less success than on the men's side, and the number receiving physical training is also lower. We therefore trust that it may be possible to improve the co-ordination of effort necessary to bring to the patients on the women's side the undoubted advantages of this needed treatment which are already available in the hospital.



The nursing staff consists of 77 men and 96 women, of whom the high number of 59 men and 56 women are certificated or registered.

Dr. Harper-Smith is assisted by Dr. F. H. Guppy, the deputy medical superintendent, by Dr. C. M. T. Hastings, and by Dr. H. S. Brodribb, who has recently been appointed.

#### BRISTOL CITY MENTAL HOSPITAL.

*July 5th, 1937.*

Since the visit paid here by Commissioners in January last year, the hospital has suffered serious loss by the resignation of its Superintendent, Dr. Barton White, who for 12½ years had filled that position with distinction and much ability. When he took up his duties here in March, 1924, he had behind him 15 years valuable mental hospital experience, part of which was gained as deputy superintendent at Dorset and earlier at Bethlem and the City of Cardiff Mental Hospital. At the last-named of these places and during the time it was a war-hospital, he did valuable work as registrar and later as officer-in-charge of its subsequently formed large mental section.

Fishponds, partly owing to certain of its structural features, especially to the large size of several of its wards, and partly to the very restricted size of its grounds, the extension of which is impossible, presents serious difficulty when attempts are made to classify the patients and to administer it on modern lines, aggravated, of course, by any rising need for accommodation such as has been felt during the past 10 years. In meeting, or, as perhaps we should say, in mitigating these difficulties and, when it was decided that there was imperative need for new buildings on another site, in acting as the Committee's Medical Adviser in the preparation of the plans of the extension at Barrow Gurney, the first section of which received statutory approval in 1934, Dr. Barton White's experience has been invaluable. He has given a yearly course of lectures on Clinical Psychiatry to medical undergraduates of the University of Bristol, which, we learn, have been much appreciated, and we record, too, with pleasure, his enthusiastic efforts to promote the operation of the Mental Treatment Act, 1930, within his city. In relation to the latter, we would make special mention of the success which has attended the efforts of himself, his medical colleagues and the members of the nursing staff concerned in the development of the clinic at Grove Road. This was made possible by the Committee's purchase in 1931 of what once was a small orthopaedic hospital. Besides providing accommodation for some 30 to 40 women patients, most of whom are convalescents, it also serves as a reception unit for a proportion of the voluntary admissions and, in the absence of arrangements elsewhere, as a centre for the out-patient treatment of cases of mental illness; there were, for instance, some 350 attendances there in 1935 and still more, we believe, last year. Dr. Barton White took an active interest, too, in the planning and development of the nurses' home which, with accommodation for 80, was erected in 1930.

We are aware that Dr. Barton White was keenly looking forward to taking his share in the opening and organizing of Barrow Gurney and, as we know our colleagues would wish us to say, it was with great regret that our Board learnt that, acting upon medical advice, he felt compelled by reasons of ill-health to relinquish his post on October 1st, 1936.

After advertizing the vacancy the Committee of Visitors appointed Dr. John James B. Martin (M.A., M.D.Edin., F.R.C.P.Edin., D.P.M.), who at the time had been for nearly 5 years deputy superintendent at Dorset and with previous service at Hellesdon (Norwich), Croydon and York City had had some 10 years mental hospital experience. In the course of the annual visit, which we have been paying on behalf of our Board and which occupied us during Thursday, Friday and Saturday, July 1st-3rd, last week, we have seen much of Dr. Martin and have had opportunity to discuss many matters



affecting; ne patients with him. We can see that he brings to his new and very responsible duties much valuable experience and high professional attainments as well, we are sure, as a zeal to promote a high standard of medical work, and to do his share in developing Fishponds and, when the time comes, Barrow Gurney on right lines.

The direct admissions during 1936 may be classified as follows :—

Whence admitted.	Male.				Female.			
	Volun- tary.	Tem- porary.	Certi- fied.	Total.	Volun- tary.	Tem- porary.	Certi- fied.	Total.
Own homes ... ..	41	3	14	58	72	7	19	98
P.A. institutions ...	3	3	81	87	3	11	76	90
Other hospitals, etc.	3	—	5	8	3	3	8	14
Total ... ..	47	6	100	153	78	21	103	202

It is satisfactory to note that about 40 per cent. of male and 49 per cent. of female patients were admitted directly from their own homes, thus being saved the discomfort and disturbance of having to become accustomed to two different new environments within a short period. The proportion of voluntary to total direct admissions was approximately 35 per cent., while the corresponding figures for temporary patients gives a percentage of 7·6. During the year 98 patients were sent out on trial, money allowances being granted to 28 of them.

Patients in residence on the first day of our visit numbered 1,155, made up of 98 voluntary, 11 temporary and 1,046 certified patients. The hospital is full on both sides: indeed, there are 10 male and 19 female patients more than the number for which there is authorized accommodation.

A number of improvements have been carried out since the last visit, including the tiling of the floors of the sanitary annexes in male wards 2 and 7 and the provision of a wash basin (hot and cold) and sluice in the male admission ward. Additional cupboards have been fitted in all wards for storage of food and clothing and, in many, coat-hanging apparatus has been fitted. A good deal of redécoration has also been carried out, and we noticed particularly the pleasant scheme of colouring in female ward 8, which has recently been borrowed from the male side and is now used for semi-con- valescent women. Much redecoration, however, remains to be done— especially in the service patients' ward—though, in view of the engineering scheme at present in contemplation for the renovation of the water and heating supply of the hospital, and the general scheme of ward reconstruction which is now under consideration, we agree that it is wise to defer redecoration work till a decision on those important matters has been arrived at.

The wards generally were well kept. It was pleasant to see in some of the wards many vases of cut flowers and pot plants; in one ward we noticed over 40 of these. The bright small screens of painted wood and light washing material in use in the sick and admission wards do much to give a sense of privacy to patients in bed. The large size of some of the wards, however, and the grouping together of many patients from different wards in the large gardens, the present lay-out of which does not give much variety, all make for difficulties of classification.

With regard to the former of the matters mentioned above, namely the large size of some of the wards, we understand that the general scheme of reconstruction now under consideration envisages a reduction of the number of patients in some wards and the remodelling of many of the sanitary annexes. As an example of the need for such improvements we would instance



the case of female ward 12 which, at the time of our visit, contained 104 patients of excitable type. This ward appeared somewhat overcrowded and there can be little doubt that the sanitary and washing facilities fall a good deal short of what is desirable. This is one of the wards Dr. Martin hopes will be reorganized in connection with the reconstruction scheme. He would propose, amongst other things, to remove about 25 of the more excitable patients to another ward (No. 10), which would be set apart entirely for their use and then to take down the glazed screen which at present divides the day space.

As regards the second point, that is, the difficulties of classification in the ward gardens, we were glad to find that, since the last visit, some additions have been made to the space in use. Although small, the pains taken in arranging them have been well worth while; they were looking very nice, and it was obvious that the patients using these new pieces of garden were enjoying the quiet and comparative privacy thus afforded, also that deck chairs in the women's gardens were much appreciated.

The clothing of the female patients is of two main kinds—first, older and now unattractive clothing of which a good deal remains on hand, and, secondly, the new comfortable underwear and brighter frocks which will in time replace it. We were glad to hear that the making of some types of underwear which have become obsolete has been altogether given up. The sewing rooms are not large, and a great deal of work has to be done in them in the making of clothing for women patients, some for men, and uniform for the nursing staff. Frocks are chosen and fitted for patients who are comparatively well mentally, but we think that if means could be devised in the sewing rooms, wards, or occupation rooms to improve the length and fit of some of the older dresses and the fit, particularly about the neck, of some of the older underwear worn by patients apparently unappreciative of what is done and perhaps destructive to their clothing, the gain would be great to all concerned. We have before now known measures of this kind to result in increased self-respect and sometimes in the development of a real pleasure in their clothing in patients who have hitherto seemed to take no interest in their appearance. We were glad to see that the unsightly and destructive use of large ward numbers or lettering in marking ink is being given up in favour of small sewed labels.

The reading facilities fall also under two heads. In several wards the books were few, old, and badly torn, with pages missing, and in some there were none. We fully realize that in some wards destruction of this sort is inevitable, but we should like to see a better supply of newspapers, weekly journals and lightly bound periodicals, even if not new, for those who lack the initiative to ask for books. On the other hand, for those who are able to make use of the catalogue of library books and to send or go to the library to choose for themselves, the arrangements are satisfactory, for them there is a good supply of well kept and well classified books.

We thought that there was a shortage of indoor games and packs of cards, etc., in some of the wards (e.g., F. 13), though others appeared to be better supplied. It was pleasing to find that the younger male patients are encouraged to play cricket and football, and that at least one cricket match, in which none but patients take part, is played annually against a patients' team of another mental hospital.

We were able to have some discussion with Dr. Martin of the question of occupation for the patients and were glad to find that he is a firm believer in the value of this form of treatment. The occupation officer has left since the last visit to take up other work. Her place is not being filled by another officer with the same duties but the nursing staff, male and female, some of whom have had, we understand, considerable training and experience in the teaching of handicrafts, are to undertake the work. The occupation rooms at present in use are somewhat cramped. In the case of those for the men



which are at the centre, observation of the patients is difficult, but we gathered that this is only a temporary arrangement. That there is scope for extension in occupation therapy is evident.

In all, 98 men and 92 women, or just over 15 per cent. of the patients in residence (including those accommodated at Grove Road), enjoy some form of parole. Three wards for each sex are open to the grounds and 2 of the women's wards are open to the ward gardens.

We were interested to see one of the most attractive arrangements for the service of meals, for parole and working patients, that we have seen in any hospital. Small tables, each for 4 patients, provided with well-chosen china and glass ware and flowers are set out in the hall. Selected patients of both sexes dine at these tables, the meal which offers a choice of 2 dishes at each course, being served from trolleys and wireless music supplied. Though as yet the number of patients so arranged for (about 80) is small, the benefit to them is great and the encouragement given towards recovering normal standards of life and behaviour must be considerable. Six of the women's wards make their own tea and supper is issued to working patients. From the meals we saw and from conversation with the steward it seemed to us that both the dietary and its service are particularly good here, and that great interest is taken in this important matter.

The death rate during 1936 was for each sex 8.4 per cent. of the average number resident. It is but rarely that the proportions on both sides are exactly equal. The corresponding average percentage for all public mental hospitals is 6.8. The higher rate here not improbably may be due to the large number of patients who, in order to help to meet the rising need for more beds, have been discharged from Fishponds to the Public Assistance care under Section 25, namely, 431 during the 10 years 1927-1936. It is a point which merits, and no doubt will receive, the attention of the medical staff here.

During the nearly 18 months under review there have been 65 deaths on the male and 75 on the female side. Post-mortem examinations have been held in 50 per cent. of these 140 deaths. The cause of death was natural in all of them except 1 case, that of a woman, who, while picking flowers with another patient on parole, accidentally fell over the cliffs at Clifton. In that and 1 other instance an inquest was held. In 32 per cent. the cause of death was attributed to heart disease. Nine deaths were due to general paralysis; the males outnumbered the females by only 1, whereas while both numbers are much lower than once was customary to find in this disease, one would have expected the sex distribution to be 7 to 2. Senile decay was returned as the cause in only 10 cases; again, perhaps explainable by the large number of patients sent out to other institutional care under Section 25.

The only other cause of death to which we would allude is tuberculosis which accounted, as a principal cause, for 11 of the male and 6 of the female deaths; 12 per cent. of the total. This is a higher proportion, especially with respect to the men, than is usual nowadays among the deaths and, of course, if there were cases in which it was regarded as secondary to some other cause, the full proportion in which it played a part would be still higher. The number of patients at present known to be suffering from this disease is 7, among whom only 1 man is included. We had some conversation with some of the doctors upon these figures, especially in the light of our knowledge that, according to the annual returns to our Office, the incidence here of this disease is considerably higher than the average; once again, possibly in part explainable by the discharges under Section 25. It is seldom safe to attempt deductions solely from statistics of only 1 year, but we suggest that, in furtherance of the health of the hospital, a study of its incidence, including dates of diagnosis, of recovery from the disease and of either discharge or deaths, spread over a period of, say, the previous 10 years, would be well worth while undertaking.



Before we pass from the deaths, we feel that mention must be made of the number which had bedsores at the time of decease—4 men and no less than 13 women. The latter represents the high percentage of 17, a proportion we do not recall finding before. In the case of patients being nursed in single rooms whose mental state makes it unsafe for them to have a bedstead, we suggested the desirability of the provision of 2 mattresses in each such case. Possibly some of the bedsores were present on admission, but we are sure that Dr. Martin, assisted by his medical colleagues and the Matron, will give the matter the attention it deserves.

In the laboratory the main work carried on is of a routine kind, in accordance with the clinical needs of the hospital. The regular Wasserman tests and other investigations and the search for organisms of intestinal infection involve much laborious activity which is of value not only in occasional positive findings, but in maintaining the standard of care generally; in particular, the freedom from enteric and dysentery since last visit must be partly attributed, we feel, to laboratory control in the past and now.

The only infectious illnesses which have occurred since last visit have been erysipelas (3 male and 5 female patients) and scarlet fever (3 male patients in 1937, 2 members of the female nursing staff in 1936). With the scarlet fever there occurred some cases of streptococcal sore throat.

Casualties of at all a serious nature during the past  $17\frac{1}{2}$  months have numbered 17, 2 on the men's side and 15 on the women's side. On inquiring, as we have done and in the manner customary at these visits, into each of them, other perhaps than those which appeared manifestly to be the result of simple accidents, and then classifying them according to cause on the lines usually followed in these entries, we feel constrained to say that our scrutiny left us not altogether satisfied; and it seems incumbent upon us to allude to them at greater length than is generally necessary. It is possibly just fortuitous; but, while the number on the women's side of a mental hospital is generally higher than among the men, at the moment the difference here between the two sides is striking and that on the women's side when expressed as a proportion, 2.2 per cent. to the average number of female patients resident, is more than twice, in fact not far short of thrice, as high as the average in public mental hospitals. Even when allowance is made for the fact that 2 of the casualties (dislocation of the shoulder, right and left, the former on March 23rd this year, and the latter 15 days later) occurred in the same patient, the difference remains as 14 to 2. Our experience is that, whilst altercations between patients and occasional struggles with staff in the execution of their duty are not wholly avoidable, resulting casualties are inconspicuous compared with the number due to simple accidents (slips and falls, the latter not infrequently in fits); here, however, we can find only 4 (all women) out of the 17 that can be so described—2 instances of fracture of the lower part of the leg, a fracture of the thigh by rolling off a couch while dozing, and a severely sprained ankle due to a slip on polished floor (the only accident so ascribed). In the case of the 2 injured men, each of whom sustained a broken collarbone by throwing himself on the floor, and of 2 women, each of whom sustained severe cuts by breaking windows, 4 in all, the injuries can be regarded as self-inflicted.

Without doubt it is better to face liability to such occasional occurrences as the latter 2 than to go back to the days of protecting the windows with wire mesh. It is just possible that another case (fracture of the outer tip of the left elbow) was self-inflicted by the patient throwing herself on the floor, but it seems considered more likely to have been caused by her elbow striking the wall during some considerable struggling with 2 nurses; we are not suggesting that the struggling could have been avoided, though it does seem possible that some lack of judgment in correctly handling the incident, both at the time and afterwards, was displayed by some of the nurses concerned. Six of the 15 injuries to women were due to altercations with fellow patients; 1 was a rather severe cut in the palm of the hand due to breaking a tumbler while



fighting with another female patient; on each occasion on which the woman (aged 31) dislocated her shoulder she was pushed down by another patient; and there were 3 instances (2 last year, in January and August and 1 eleven weeks ago) of fracture of the neck of the thigh-bone in women aged respectively 73, 69 and 63 caused by being pushed down by another patient. Injuries of this nature to elderly persons are very liable to be followed by fatal results and, besides being regrettable, we are sure that nursing staffs are taught to be specially on the alert to prevent them; it is for this reason that we have given the dates which happily do not suggest their happening with any special frequency. The third of them, however, is one of no less than 7 severe casualties on the female side which have happened during a period of 8 weeks (March 23rd to May 16th this year), namely, the 2 dislocations and 1 of the cases of fractured thigh (all 3 sustained by a push from a fellow patient), the fractured thigh due to rolling off a couch, the badly sprained ankle, the fractured tip of the bone of the upper arm, at the elbow—allusion already has been made to these 6—and a fracture—dislocation of the bone of the upper arm at the left shoulder (a comparatively rare injury) accompanied by severe bruising of the shoulder, breast and hip on the same side, and some bruising on the chest and right arm. The bruising and the fact that there was something wrong with the arm were noticed and reported on April 25th, but the visiting surgeon who was called in expressed his opinion that the injury was at least 10 days old. This casualty is 1 of 2 out of the 17 in which it has not been possible with certainty to ascertain the cause; the other was a fracture of the lower end of the inner bone of the left forearm, which occurred last December in a woman at the detached unit at Snowdon Road, and as to which there was some ground for believing that it might have occurred spontaneously. We recognize that, despite most careful observation, it sometimes is impossible to determine the origin of an injury. With regard, however, to the former of these two injuries of doubtful origin, even if it were more near to the date (April 25th) when it was reported (for example, on the 22nd, when there is a corroborated history of a fall), it is disquieting to find that no member of the nursing staff in the meantime had reported any bruising either at bathing (if, in fact, she was bathed in the meantime) or when the patient was undressing or dressing. She had a limp from an old fracture of the left thigh, so it is, of course, quite possible that, had she accidentally slipped or received a push, she might have fallen much more heavily than ordinarily she would have done. Unfortunately, by reason of her mental state, she was quite unable to give us the slightest help in learning what had happened; as was also the case with some other patients whom we thought it desirable to question. It is questionable whether further inquiry will elicit fuller information than already has been obtained. From a perusal of the notes kept of these injuries, especially in the case of this dislocation fracture and in the injury believed to have been sustained by a fall off a couch while dozing and from our own enquiries, we are not convinced that inquiries at the time were pushed home with the thoroughness which the protection of the patients imperatively demands. If we are right and should this relate to fear that neglect or other censurable conduct may be imputed to someone, we feel sure that the Committee will agree with us that anything like obstruction in dealing with these matters must be sternly dealt with.

We found 51 men and 61 women in bed, that is, 10 and 9 per cent. respectively of the totals in residence. It seemed to us that they were receiving careful nursing and, in each of the wards in which we happened to make inquiry, it appeared that none was suffering from any bed sore. In inquiring into these patients in bed and about a number of them not so confined, we were given much interesting information by the doctors concerned as to both the physical and mental state of the patients. It was evident, too, that good use is made of the services of the visiting medical and surgical staff, and that the great value of their help is fully realized. What



we have said in the previous paragraph and in relation to the deaths does not prevent us from saying, as we should like in concluding our entry to state, that much excellent medical work is being done at this hospital.

Including charge nurses there are 79 male nurses and 104 female nurses on the staff, about 79 per cent. of the former and 38 per cent. of the latter being certificated or registered as mental nurses. Recently teaching has been undertaken for the examinations for State Registration; we congratulate the candidates on their success.

Lastly, we should like to make brief allusion to rearrangements we hear are afoot in connection with the two large teaching hospitals in Bristol. We are not conversant with the details, but, whatever shape the schemes may take, we are sure that, in order to enable this large and important mental hospital to fulfil its true function in the treatment of incipient and early mental illness, it is most desirable that an adequate share be allotted to its medical staff in the work of a section for Nervous and Mental Disorders forming—as we venture to hope will be arranged—part of the general hospital's out-patient department.

Dr. Martin has to assist him Dr. H. Smith, as Deputy Medical Superintendent, and Drs. R. E. Hemphill, Penuel G. Grant and R. Gibson.

#### CANTERBURY MENTAL HOSPITAL.

*December 9th, 1937.*

We visited this hospital yesterday and to-day, and have to record several changes since last visit 16 months ago. Dr. McIlroy has left after several years in the hospital; he is succeeded by Dr. John Gibson, who has had general medical experience in hospital and practice and has been here since June of this year, as medical officer and deputy to Dr. Scott. Mr. Brett, who was clerk and steward, has retired, the post being filled by the appointment of Mr. A. G. Webb.

In various wards and buildings a good deal of modernization and redecoration is gradually being carried out, the use of soft light colours for walls adding greatly to their fresh and bright appearance. Rewiring and the extension of the gas service as contemplated will make for greater comfort and efficiency. There was good order and cleanliness everywhere, and we were glad to know that many points which we discussed, such as fuller provision of hot water in the lavatories and better means of storage of clothes at night have had or will have attention.

The clothing of the women patients is being improved by the issue of frocks of neater appearance and more modern style, and by the supplying of underclothing of a light woven type, which has proved to be economical and comfortable. Gradual replacement of the older types of clothing is being carried out. We hope that it will be found possible to provide suitable clothing for the male patients who are in the physical training class. We were glad to see the care given to the upkeep of beds and bedding which was everywhere noticeable.

A canteen was opened this summer, and is much appreciated by the patients. A small issue of token money, to be spent in the canteen is given to working patients whose need is not met by the extra allowance of tea or tobacco generally supplied for them and is found to be a real stimulus and encouragement to those who receive it.

A new feature is the orchestra formed under the direction of Mr. Garvie, whose appointment as head male nurse followed the retirement after many years' service of Mr. E. C. Else. Members of the staff, as well as several patients who suffer from mental disorder of quite severe type, take part in the orchestral work, to their own interest and the benefit of the hospital. A concert party of members of the nursing staff is preparing to help with Christmas entertainments. Another unusual and considerate provision is



that of a class for the deaf and dumb, visited weekly by an outside helper with special knowledge of their disability. Concerts, weekly dances, the visits to sound film entertainments at the mental hospital at Chartham, and in the wards, wireless and a supply of indoor games are other provisions for recreation.

The names of 259 patients are on the books, 1 is on leave, and 258 are in residence, of whom 119 are male and 139 are female, according to the figures supplied to us. There are 22 female private patients and 18 male private patients of whom 5 belong to the service or ex-service class. It is noticeable that 83 of those in residence are out-county patients, of whom 40 are from the City of Birmingham, and 39 from Suffolk (St. Audry's), while there were 51 direct admissions and 48 admissions on transfer during 1937, to date. Over the same period 22 patients left by discharge or departure, 22 were transferred, 7 went out on trial, and 20 died.

Accommodation is for 110 males and 128 females by day, and 121 males and 139 females by night; the excess or deficiency of patients in relation to this accommodation is at present negligible.

The maintenance cost is 3ls. 6d. per head.

Diet is arranged on a 4-weekly basis and is on the whole suitably varied. There has recently been an addition to the diet in the form of breakfast dishes which are given on most days of the week. It is particularly satisfactory to know that a light supper is provided for all patients, bread and cheese and tea being evidently enjoyed during the later part of our visit yesterday; the health and comfort of the patients cannot fail to gain by the avoidance of a long fasting period between tea and breakfast. We hope it may be found possible to provide smaller and finer fish than that shown to us, for those of the sick who may need it. The tea is made with care but for most wards contains milk and sugar before it is issued. We understand that the pleasure which would be given to patients who are sufficiently well to appreciate such things, by allowing tea to be served in tea-pots with separate milk and sugar, is kept in mind and will be provided in certain wards when suitable arrangements can be made. This is already done at Stone House.

At the farm, the shippin is of a modern type with short stalls and metal fittings, including automatic drinking troughs, but there are no means of sterilizing the milking pails on the premises; they are washed in the hospital general kitchen. As the allocation of some new space for milking utensils is contemplated, we trust a steam sterilizing oven will be obtained at the same time; and an ablution basin fitted for the milkers.

At the time of our visit 9 men and 20 women were under treatment in bed, a considerable proportion of whom were of advanced years. All fresh admissions are examined for serum reactions and agglutination, and in this way some 10 men and 1 woman have been found to exhibit a positive agglutination towards enteric fever and 1 towards dysentery, but no illnesses of this nature have occurred.

The laboratory still lacks some necessary facilities, including that of gas (which we understand is to be provided) and equipment for cultures in intestinal infection. Wasserman tests are to be carried out on every newly admitted patient, as well as the agglutination tests to which reference has been made; a blood count, and a blood urea estimation. A start has been made with this, which with only 2 of a medical staff and without the assistance of a trained attendant or other worker in the laboratory, is most creditable.

In our experience the treatment of epitheliomata or other growths in old people in mental hospitals, particularly that of slow growths about the face, often presents difficulty. Here, one such case was successfully treated with the co-operation and help of the Radium Institute, by radium which was lent with instructions for its use. The prevention or the relief of suffering in the aged by such means is a great gain.



Arrangements have recently been made for visits by a surgical specialist in diseases of the ear, nose and throat and treatment in this direction has already begun. This is in addition to the existing consultant staff.

Treatment by occupation is carried out in an effective manner so far as it at present extends, but there is only one nurse on each side who has been instructed in certain handicrafts. We trust it may be found practicable therefore to increase the familiarity of the nursing staff with this valuable form of treatment and to enlarge their opportunity for co-operating in it. One of us saw several years ago here a restless patient then quite unemployed; she is now, after a year's teaching, happily employed in a very simple manual occupation. The appreciation of the Committee of work of this kind was expressed in their report for 1936.

Considering the useful range of treatment here, we are satisfied that from both the medical and the nursing points of view, the patients receive most careful and considerate individual attention. We noticed, however, that 4 men were under treatment for tuberculosis in the room which accommodates the sick and the new admissions. The ward has no verandah in which the tuberculosis can be nursed separately from other patients and in the open air, a provision which we regard as essential in the interests of the general health as well as of the individual patient. Such a need was emphasized in the entry of last visit.

A woman of 80 fell a year ago on the stairs, fracturing her right femur. We think it speaks well for everybody concerned that she is now able to go about again.

Since the last visit 2 inquests have been held on patients whose deaths both followed incidents occurring previous to admission. In all some 33 patients have died (15 male and 18 female). The cause of death in 12 cases was heart disease and in 6 pneumonia. One man died of tuberculosis. Post-mortem examinations were conducted in as many as 23 instances.

The case notes which we saw contained particularly informative notes on the mental and physical changes in the patients concerned.

In his report for 1936 and in discussion with us, Dr. Scott mentioned his regret that "many cases are still certified when they could rightly and advantageously be dealt with as temporary patients." With this view we are in agreement, and we hope that this state of affairs will not continue. There is at present only 1 temporary patient in this hospital, but she is a private patient; there has only been 1 admission of a rate-aided temporary patient since last visit.

We feel that sound advance has been made in enlarging the scope of care and treatment here, and we were glad to note the general atmosphere of confidence and content in the hospital as a whole.

#### CITY OF CARDIFF MENTAL HOSPITAL.

*November 18th, 1937.*

During the past year an important change has taken place in the administration of this hospital. Dr. P. K. McCowan who so ably filled the position of medical superintendent from 1929 to 1937 resigned in February last to take the appointment of physician superintendent at the Crichton Royal Mental Hospital, Dumfries, and was succeeded here by his deputy, Dr. T. J. Hennelly.

We wish Dr. Hennelly every success in his new and important position in a hospital with great traditions in the research into, and treatment of, mental disorder.

In the past 2 days we have visited all parts of the hospital and we believe we have seen all the patients in residence and we have talked to all those who showed any desire to converse. We gave one private interview.



There were to-day 778 patients—360 men and 418 women—in residence and as only 1 woman is at present out on long leave, the number on the statutory books is 779. Of the patients in residence no less than 284—128 men and 156 women—are in the voluntary category and 11—2 men and 9 women—are temporary patients. The number of direct admissions for 1936 was 303 and of these 207 were admitted on a voluntary basis, 51 on a temporary basis—only 45 under certificates. These figures are an interesting proof of how well the Mental Treatment Act, 1930, is being worked in the City of Cardiff and must be regarded as highly satisfactory.

Thirty-six males (29 in the service or ex-service class) and 11 females rank as private patients and the charge for these varies from £1 13s. 3½d. to £2 12s. 6d. per week. The maintenance charge for rate-aided patients is £1 8s. 7d. and the average weekly maintenance cost is £1 8s. 5d.

Upon the figures before us overcrowding by day exists on both sides of the hospital and amounts to 32 on the male and 15 on the female side. There is deficiency of accommodation on the male side by night for 2 patients.

Parole is granted to patients at this hospital upon a generous scale, 51 men and 42 women enjoy this privilege beyond the estate and 52 men and 107 women within the grounds. Six male and 7 female wards are regarded as parole wards and are open either to the ward gardens or to the corridors of the building. A number of patients of both sexes are allowed to go home on week-end leave, a privilege which is much appreciated.

During our tour of the wards we have been impressed by the good behaviour of all patients, even those in what are usually described as “disturbed” wards and by their quiet demeanour. We are satisfied that this is due to the active medical treatment each patient enjoys and to the policy so noticeable here by which 83 per cent. of the patients are usefully employed.

Occupation therapy at this hospital is regarded as covering all forms of employment as well as such activities as physical culture and country dancing and all forms of recreation. The atmosphere of the hospital is one of busy activity, not only in the laundry, kitchen, sewing-room and workshops, but also in the occupation centres on both sides and in every ward day-room.

We were interested to see a garden in an interior court yard being re-planned and laid out with a view to its being utilized in good weather as an outdoor occupation therapy centre.

The wards generally were in excellent order and much attention is obviously paid to making them as comfortable and homelike as possible. Owing perhaps to the fact that the central heating system is generally in need of some adjustment at the beginning of the winter, the temperature was somewhat low in several of the day-rooms, but we gathered that the engineering staff was engaged upon improving the state of the heating pipes. Spittoons are still to be seen in some of the male wards, but we were glad to be informed that efforts are being made to abolish their use. The store-rooms are very much crowded in nearly all wards and we have suggested to Dr. Hennelly that relief would be afforded by the utilization of the boot-rooms for the storing of outdoor garments. Fixed rods with coat hangers attached could quite easily be installed.

Lack of space delays the formation of a central library and reading-room, but we understand that Dr. Hennelly has a scheme in his mind by which a suitable room for this and other purposes could be contrived. We have suggested to him the improvement of the quality of the library books and their augmentation. The present fortnightly supply to the wards is, we think, somewhat low.

The hairdressing saloon continues to do most useful work. The paid hairdresser has a patient to assist her in her work and a second patient could no doubt be usefully employed in washing hair if more space were available; we have made several suggestions as to how this could be contrived in the present room, small though it is, and Dr. Hennelly is to give them his attention.



In our visit to the kitchen we were interested to see the new and very modern gas cooker recently installed. It is proving very useful. We think that some re-arrangement regarding the patients' sanitary annexe to the kitchen is desirable.

The diet is on a generous and varied scale and it is pleasing to note that only butter is provided for the patients. Dr. Hennelly has promised to see if it is possible to make an issue of fresh fruit weekly to all patients.

The present staff of nurses consists of 3 male and 12 females of charge rank and 29 males and 59 female ordinary nurses and 8 male and 11 female nurses are on night duty. Eighteen female nurses are employed on the male side of the hospital. An interesting and recent innovation is the employment of ward maids who are responsible for the cleaning of the wards, 6 of these are employed in the female and 1 in the male side of the hospital.

We discussed certain details affecting the method of dealing with fouled linen and recommended that the steam jets should be reversed so that the bins can be inverted over them. We also suggest that a pantograph marking machine should be introduced to avoid defacing linen by the use of the present large die stamps.

The average number of patients resident during 1936 was 769. The mortality rate for that year was 9.8 per cent. Since the last visit on September 1st, 1936, the number of deaths was 79—38 men and 41 women. The number of post-mortem examinations held was 55, that is in 69 per cent. approximately.

Of the causes of death, heart disease, 27 cases, and broncho-pneumonia, 21 cases, were the commonest—12 men and 15 women in the former group and 9 men and 12 women in the latter. Of the remaining causes senile decay 7, general paralysis 5—3 men and 2 women—and brain disease 3 were the most notable.

The hospital has been free from serious epidemic disease and apart from a mild outbreak of Sonne type dysentery the only infective disorder to record is erysipelas of which there were 4 cases on the female side and 1 on the male.

Of the more serious injuries, 7 were fractures, of which 5 involved bones of the lower limbs; in 2 cases the fracture was sustained by slipping in the general bathroom. A most unusual accident—the rupture of an eyeball—was caused by the patient concerned walking into the edge of a door.

On the female side 44 patients were being nursed in bed at the time of our visit and on the male side 30. We were satisfied that they were receiving careful nursing and skilled medical attention. Four male patients only were suffering from active tuberculosis. While the general forms of medical treatment for the respective types of mental disorder are applied here, we would mention a few of the more special methods, namely, insulin shock therapy, cardiazol and prolonged narcosis under somnifaine.

We are glad to know that it is the intention to bring into still closer association the activities of the research laboratories and the clinical work of the wards. These activities, coupled with the need for constant vigilance on the part of the medical officers in charge of more specialized forms of treatment, such as insulin shock therapy, make a heavy demand on the time of the doctors concerned. We feel that the assistance of an additional medical officer is required to relieve them of certain duties. We have discussed with the medical superintendent several aspects of the present situation which deserve attention and we feel that the additional appointment would be fully justified.

Under the direction of Dr. Quastel the laboratories are engaged in research into the problems of metabolism and especially, at the moment, into that of the nervous tissues.

Mental clinics are held twice a week at the Cardiff Royal Infirmary and also at the City Lodge Public Assistance Institution. At the latter the



medical superintendent holds 2 sessions, at the former the assistant medical officers hold 5 sessions. The services of the social worker have proved invaluable in this scheme.

Dr. Hennelly has as his deputy Dr. Davies, with Dr. Wales as assistant medical officer and Dr. Phillips as house physician. Our thanks are due to him and to them for their assistance in what has been a most interesting visit.

#### CROYDON MENTAL HOSPITAL.

*May 5th and 6th, 1937.*

Since the visit of our colleagues in January of last year considerable progress has been made with plans for the erection of a new admission hospital, its associated convalescent villas and of a modern sick hospital. The building scheme also includes considerable extension and alteration of the present laundry, which is acknowledged to be out of date in its arrangement and equipment. Considerable improvements, too, are to be effected in the central kitchen and extensions are to be made to the nurses' home. It is hoped progress with the detailed plans will have so far advanced that building will begin early in 1938.

Overcrowding has been alluded to in previous reports and the situation is little changed. There are now on the statutory books the names of 328 men and 594 women, and there are actually in residence the same number of men and 591 women. There is a deficiency of accommodation by day for 44 patients on the male side and 78 on the female, and by night for 27 and 46 on each side respectively.

During 1936 total direct admissions numbered 194 and 10 were admitted on transfer; during the same period 113 were discharged and 9 transferred to other statutory care. Of the direct admissions (194) 59 were admitted on a voluntary basis, but only 3 under temporary certificate. A gratifying feature of these figures is the increase in the number of voluntary patients as compared with those of the previous two years, when the numbers were 37 (in 1935) and 24 (in 1934). There are, unfortunately, no similarly encouraging figures to quote in relation to those admitted on a temporary basis, but we hope some means will be adopted of bringing before general practitioners and the relieving officers of the areas concerned the importance of considering the possibility of treatment without resort to certification.

The increase in the voluntary admission rate is due, to a considerable extent, to the opening of a mental clinic at the Croydon General Hospital, where a weekly session is held by Dr. Rees.

The weekly maintenance charge for home patients is 25s. 8d.; the average weekly cost, as last ascertained, was 26s. 4d. For private patients the weekly charge varies from 21s. 7d. to £5 5s. 0d.

During the period under review several improvements and additions have been carried out, one item of major importance being the provision of an occupational therapy hall for each of the sexes. Each hall is of simple design, well ventilated and bright, and includes a canteen whereat on visiting afternoons, patients and their friends can obtain refreshments at a moderate price, all profit being devoted to the patients' recreation fund. With the acquisition of these occupation rooms, occupational therapy has been placed on a proper basis and development of this mode of treatment is progressing systematically. On the female side a full time handicrafts' instructress, having special qualifications, has been appointed. She not only directs the activities of the centre, but also holds classes for instruction of the female nurses during the afternoon, so that, having acquired a knowledge of the methods, they may assist at the centre and introduce into their wards the same occupations for those patients who are unable to attend with members of the main group. On the male side, under different direction, a considerable number receive instruction on similar lines and the enthusiasm of the staff there has produced



excellent results. Perhaps it might be arranged that some collaboration can take place between the qualified instructress and the person in charge on the male side whose interest in this line of treatment is particularly keen.

On the male and female sides physical training classes are being organized in a methodical fashion. A full time instructor takes various classes of men for exercises in the morning and devotes the afternoon to games. The response to these activities has been encouraging and we were interested to note the results obtained in a group of pronounced schizophrenics.

On the female side, too, a special keep-fit class is held twice weekly by a qualified instructress engaged from outside.

The general sports programme is well organized on the male side, fixtures being arranged with outside teams as well as inter-ward or villa matches. The issue of a weekly printed programme adds to the pleasure which entertainments of such a nature provide.

We are glad to hear that consideration is being given to the provision of a talking-cinema, and we hope the various problems at issue will be successfully overcome.

We found many of the patients in the ward gardens, which are attractive and well kept. The patients throughout were exceptionally quiet. The day-rooms generally are bright, pleasant, and comfortably furnished. In each there is an adequate supply of daily papers, weekly periodicals and indoor games. We were interested to hear of the proposed creation of a central library and reading-room, and we hope that in this way a regular and increased supply of books to each ward, with more frequent changing, will be facilitated.

The clothing of both male and female patients is of good material, varied in pattern and design, and, on the female side, cut on modern lines. All suits and frocks and most of the female under-garments are purchased by contract. We are sure it would add to the appearance of frocks and coats, and increase their lengths of wear, if the use of rods and hangers were to be introduced to replace the present system of folding. Reorganization of the existing space in most of the ward store-rooms would permit of the erection of suitable cupboards with hangers.

When the extensions to the laundry are completed it may be found practicable to extend the system of individual marking of underclothing and to permit the washing of the private clothing of the ordinary patient in the hospital's laundry.

We noted that only in the new villas has hot water been laid on to the handbasins. We sympathize with the complaint of one lady in the private ward on this point, and we feel sure that the general introduction of a hot-water supply to handbasins would be a great convenience.

In the ward kitchens the means of heating water and plates are acknowledged to be inadequate, and we are glad to learn that it is the intention of the Committee to provide electrically-heated plate warmers and water-heaters. The use of papier-mache cups and plates could, we think, be discontinued in the few wards where they are still used. There appears to be a need for stricter supervision of the methods of keeping separate brushes used for different purposes, e.g., those used in the sanitary annexes and ward kitchens.

In some of the dormitories overcrowding was noticeable, and we would mention in association with this our observation of the use of commodes even in non-observation dormitories. We hope it may be found possible to permit of patients sleeping in non-observation dormitories to have access to the adjacent sanitary conveniences and we may mention, for example, the villa dormitories.

Also we would like consideration given to the possibility of leaving open by night shutters of some of the side-rooms, wherever such a departure from the custom would not be attended by risks.



At the time of our visit 5·7 per cent. of the men and 4·8 per cent. of the women were being nursed in bed. This is an unusually low number, and almost half of them were in bed on account of mental reasons. These patients showed evidence of kindly and sympathetic nursing care, and we feel assured that they receive every possible medical attention. A dentist visits weekly, and, in addition to extractions, does any necessary preventive work, and dentures are supplied where suitable—12 being provided in 1936.

A good deal of investigation is being done into the effect of glandular therapy in various mental condition of both sexes. Other lines of research engaged in by the medical officers are : (1) The effect of benzedrine in katonics; (2) Skin reactions in epilepsy; (3) Hypochlorhydria in agitated melancholia.

The laboratory—in addition to being used for research—is used for very full routine investigations on all admissions, including blood biochemical tests.

The death rate for the year ended December, 1936, was 7·1 per cent. (males 8·9, females 6·1). Since the last visit there have been 107 deaths (males 48, females 59), followed in 73 cases by post-mortem examination, i.e., in 68 per cent. The principal causes of death were heart disease 43, pneumonia 28, senile decay 11, and kidney disease 7. All deaths were from natural causes.

The hospital continues to be free from enteric fever and dysentery, but in January of this year 85 patients were affected by a mild form of influenza. At present only one patient is suffering from active tuberculosis.

During the period under review there have been six major casualties—all in the nature of simple fractures—three being due to accidental falls, and one to a blow from another patient. In the remaining two—a fractured rib and a fibula—the cause remained unknown.

The present nursing staff consists of 21 charge nurses (male 8, female 13), and 101 ordinary nurses (male 52, female 49). Of the latter 17 of each sex rank as night nurses. Sixty-three per cent. of the men and 45 per cent. of the women are certificated or registered as mental nurses, while an additional 13 per cent. of the former and 24 per cent. of the latter have passed the preliminary examination.

We concluded our visit with an inspection of the farm buildings, where several improvements have been effected, and are worthy of mention, leading, as they do, to a high standard of hygiene in the supply of milk yielded by a tuberculin-tested herd. These are :—A steam sterilizer for all utensils coming in contact with the milk, a cooling apparatus, and tiling of the dado in the cowsheds. We are informed that further extension of poultry farming is impossible owing to the limitations imposed by the space available, and other branches of farming, all of which could provide useful occupation, if fully developed, are similarly restricted.

We were very interested in much that we saw at this hospital, and thank the medical superintendent and his medical officers for their assistance during our visit. We had the pleasure of meeting the Visiting Committee on our second day at the hospital.

#### DERBY BOROUGH MENTAL HOSPITAL.

*October 26th, 1937.*

There were to-day in residence in this mental hospital 592 patients, in the proportion of 259 men to 333 women. This figure represents an excess, calculated according to the prescribed space allowance, of 56 male and 10 female patients for both day and night purposes, but it does not convey an



adequate picture of the overcrowding which exists in many of the wards, and notably in the sick and infirm wards at present used for admission purposes.

Fortunately, however, the Visiting Committee have taken steps to remedy this state of affairs. The new admission hospital, at present in course of erection, will provide a further 63 beds, although these, of course, will be required for the most part for new admissions. Two new parole villas, containing accommodation for 35 patients of each sex, are to be erected, and we understand that the question of building two convalescent villas is under consideration. We hope, also, that a few beds will shortly be released by the removal of some 10 mentally defective children, the burden of whose care and maintenance at present falls, most inappropriately, upon the shoulders of the Visiting Committee of this hospital.

We spoke to many patients in the course of our visit. We received few complaints, and none to which we could attach importance. The clothing of both male and female patients was adequate and neat, the dietary—which is a 3 weekly one—was varied and substantial, as we ourselves observed, and ample provision is made for recreation.

In all the wards, including those of older design, the day-rooms were well kept and furnished, where possible, with separate tables. They were well supplied with books, and the use of flowers and plants, as well as of pictures, contributed to the pleasant appearance of the rooms occupied by quiet and well-behaved patients. We think that although some are already provided, an increase in the supply of mirrors in all the day-rooms and all the dormitories would be appreciated, even in the more disturbed wards (male and female), where they might be of therapeutic, as well as æsthetic, value. We understand that the question of improving the quality of the illumination in all the day-rooms is receiving consideration.

The sanitary annexes were in excellent order and scrupulously clean. We have no fault to find with this important provision except that, in nearly all cases, a supply of hot water for washing purposes was lacking.

The dormitories, although in some wards overcrowded, were also clean and well kept, and no complaint can be made upon the score of inadequacy of beds or of bedding. In ward F.4 we were shown a dormitory which has recently been redecorated with wall paper of a pattern which contributed a great deal to minimize its institutional appearance. We think, however, that in those dormitories in which numbers of sick or infirm patients are being nursed in bed there should be available in the dormitories themselves a supply of running hot and cold water.

There are 48 private patients at present in residence, including 18 of the service or ex-service category. The charge for their maintenance varies from £2 2s. 0d. to £3 3s. 0d. per week, that for home patients being 25s. 8d. The average weekly maintenance cost, as last ascertained, was 25s. 4d.

Twenty-one men and 39 women enjoy parole outside the grounds of the hospital, and 13 men and 16 women within them.

We should like to see occupation therapy organized on a much wider basis at this hospital. Upon the female side there is a spacious room for handicrafts, but the daily class is attended by the same group of approximately 20 women. Admittedly there is a good variety of occupations, and the standard of article produced is high. But many of the class would now be able to do the work under the supervision of nurses in the wards, thus leaving room for new patients to be trained. There are numbers of more retarded patients in the day-rooms who would benefit from more simple forms of occupation, such as sorting wool, tearing remnants of dress material or plain knitting. Additional scope for occupation would also appear to exist in the sewing-room, where the average attendance rarely exceeds 3 patients.

The male occupation therapy class of about 20 patients is held in an outbuilding which has no flooring, and is inadequately lighted, heated and ventilated. Before the more sedentary forms of occupation can be introduced



this place will need to be improved in these respects, and this is contemplated within the next few months. At this centre the patients are occupied chiefly in making lockers, repairing furniture and producing small brushes—in other words, the workshop approximates more to a utility department than to an occupation therapy centre. We would suggest that it would be well if the officers responsible for the classes were given opportunities of observing occupation therapy activities at mental hospitals where they are well organized.

Physical exercises are now regarded as a valuable form of therapy, especially for the more introverted type of young patient. It is to be regretted that, until the overcrowding is relieved, it will not be possible to arrange for the recreation hall to be free for the purpose of physical training classes during the day time; for the present, about 150 patients have their meals in this hall. It is possible, however, to arrange exercises for short periods of but half an hour each day for small groups of young patients in the gardens, when weather conditions permit. We hope that some, at least, of these classes will be commenced by the nursing staff without delay.

One hundred and ten patients were being nursed in bed at the time of our visit. This exceptionally high proportion is more than 18 per cent. of all patients in residence. Eighty of these were women, many of whom were suffering from slight colds, and were in bed more as a precaution than as a necessity. The provision for nursing sick patients in the open air is very limited, and not up to modern standards, but the verandahs available are used as much as possible. The sick patients receive good nursing care, and we were interested in the full notes made by the nurses upon the patients' condition and behaviour from day to day.

Further consideration should be given to the arrangement of ward medicine cupboards. We drew attention to the statutory rule that 'in every institution every substance included in the First Schedule (to the Poisons Rules) which is stored in the wards must be stored in a cupboard reserved solely for the storage of poisons and poisonous substances.' In most mental hospitals additional precautions have been taken, and these were discussed with Dr. Bain and his medical colleagues.

Detailed enquiries were made in the course of our visit into the arrangement of nursing supervision at night. The night duties are shared by 9 nurses, 3 men and 6 women. We came to the conclusion that at least 1 additional nurse is necessary upon the male side.

The death rate for 1936 was 8·7 per cent. This comparatively high rate we attribute chiefly to the large number of senile patients at the hospital. Three patients committed suicide; 1 was on leave at the time when she committed the act. Post-mortem examinations were made in 41 of the 47 deaths that have occurred during the last 17 months, the period under review.

During this period 6 patients, all women, have sustained fractures, the injury in each case being verified by X-ray examination. Details of the circumstances in which the injuries were sustained have been given to us, and in all cases the injury was due to an accidental fall.

In 1936 118 direct admissions took place—21 voluntary, 61 temporary, and 36 certified. As in preceding years at this hospital the outstanding feature is the large number admitted upon a temporary basis. It is not surprising that many of the patients so admitted were regraded as voluntary or certified during the first few months of residence. At the time of our visit there were 24 temporary patients in the hospital.

#### EAST HAM AND SOUTHBEND-ON-SEA MENTAL HOSPITAL.

*March 4th, 1937.*

Our visit, the first to be paid on behalf of our Board, was one of great interest. This hospital, which, we understand, is to be officially opened



in June, began to admit patients in May of last year, since when patients have been received in increasing numbers as the various units have been completed and staffed for occupation.

The hospital, which comprises some 19 units specially designed to facilitate classification, occupies an estate of over 500 acres, and is situated in pleasant undulating and well wooded country between East Ham and Southend, the latter place being within easy access only some 10 miles away.

The general architectural design gives expression to the modern trend in mental hospital construction of avoiding as far as possible the older practice of erecting blocks consisting of two or more stories of large wards and dormitories, the greater proportion of the units having been built on the pavilion principle.

The water supply and the disposal of sewage are provided for by the public services, while electricity is generated at the hospital power house, and is used extensively for cooking and lighting.

During our visit we inspected the 8 units already occupied by patients, these consist of "Harper House" for male and female sick, including tubercular cases; the admission hospital, "Oakfield House" for convalescent men, "Elm House," where the infirm men patients are accommodated, and also "Chalkwell," "Grangewood" and "Plashet House."

Since the nurses' home is not yet ready for occupation part of the hospital accommodation has had to be utilized for housing the existing female nursing staff. This factor, in addition to the difficulty already experienced in obtaining suitable probationers, is explanatory of the small number of women patients admitted to date.

During the period under review, i.e., since May, 1936, according to the statistics placed before us, there were:—

	Voluntary.		Temporary.		Certified.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Direct Admissions ...	54	49	8	21	28	52	90	122	212
Admitted on Transfer ...	—	—	2	2	183	15	185	17	202
Departed or discharged (excluding transfers) ...	20	31	—	6	3	6	23	43	66
Of whom had recovered	8	9	—	3	1	6	9	18	27

From the above figures it is gratifying to observe that right from the start the advantages to be gained from the Mental Treatment Act, 1930, have been widely appreciated in so much as 48 per cent. of the direct admissions were on a voluntary basis, and 13 per cent. were received as temporary patients.

Dr. Ström-Olsen, assisted by his medical officers, holds an out-patient clinic weekly, both at the East Ham Memorial Hospital and at the Southend General Hospital.

There are on the statutory books the names of 337 patients (247 men and 90 women), of whom 59 are voluntary patients and 16 are temporary. We believe that we have seen all these patients (with the exception of 1 woman who is away on leave), and have given them opportunities to make any statement if they so desired. The relationship between patients and staff is good.

The weekly maintenance charge per head for home patients is 35s., a figure which will undoubtedly be reduced when the remaining two-thirds of the accommodation is occupied. As yet there are no private patients.

In the day-rooms of each unit we found particular attention had been paid both to the design and appearance of the furniture; there was also a good supply of flowers artistically displayed in special flower stands. The whole scheme of furnishing and decorations created an atmosphere of cheerfulness and comfort.

The central heating is electrically equipped, and electrical tractors convey electrically heated food containers to their various destinations.



Each unit has a kitchenette also equipped with electricity, which provides for the suitable heating of food and plates, etc. In addition each unit has its own refrigerator.

There is a central library, and the resident chaplain acts as librarian. The number of books at the moment is very small—some 320 only, and it is hoped that early consideration will be given to the acquisition of many more books so as to enable the scheme for their distribution to the various units to be fulfilled as soon as patients are admitted. Even in the units already occupied the number of books is small.

Among the many amenities of the hospital are 2 visiting rooms which are not far from the canteen : these visiting rooms have pantries from which tea can be supplied to the patients and their friends.

The indoor amusements of the patients consist of weekly dances and “talkie” cinema programmes in the recreation hall, while in addition, last Saturday there was a pantomime performance of “Dick Whittington and his Cat.”

There is wireless in every unit and a plentiful supply of indoor games and billiards tables.

All the patients were well and tidily dressed each one having his own separate clothing. Great care has been taken to select modern clothing of good taste for the women and similarly comfortable and suitable clothing for the men.

There are in this hospital various laboratories provided with modern apparatus for exhaustive routine examinations as well as with special equipment requiring a high degree of technical skill. Associated with investigation into the patients' metabolic processes are forms of treatment which, though they may not all be considered as new, will, in conjunction with these investigations, be applied in as scientific a manner as possible. We would specially mention in this respect the excellent X-ray unit and modern operating theatre, also the light and heat therapy apparatus and the facilities for the several forms of hydrotherapy, all of which will be under the actual supervision of a trained physiotherapist whose appointment, we hope, will not be long delayed. Coupled with this there are provided in the scheme of workshops special occupation therapy rooms of attractive design and ample accommodation, where, under trained occupation officers, the technique of this form of treatment will be properly supervised. The value of physical exercises, using the term in its widest sense, has been recognized from the beginning, and already classes are being held for both sexes : we hope that this aspect of the treatment will also be under the direction of trained instructors.

Psychotherapeutic treatment, particularly in its application to the psychoneuroses, is provided for in special units, and this acknowledgment of its vast importance in the general scheme of treatment is evidence of a determination to bring to the aid of the mentally ill the several methods found by experience to be of practical value in restoring the patient at least to a measure of good physical and mental health.

In specialized departments advanced research work will be undertaken in an endeavour to elucidate some of the problems of mental disorder, and it is to be hoped that the intention to appoint selected research workers will be given effect to in the near future. We hope, too, that the intention to make this hospital not only a centre for special research, but also one for post-graduate study will be realized, and association with a teaching hospital established. A feature of the facilities for research is to be found in the medical library, where advanced information on the specialty of mental disorder is provided, including works not yet translated into the English language.

The arrangements made for the acute medical and surgical cases in the sick unit known as “Harper House,” fulfil all the requirements of modern methods in respect to facilities for treatment, convenience of nursing and comfort of the patients. Tubercular patients, of whom there are 6 men to-day, are accommodated in spurs at either end of the unit, and are provided



with excellent verandahs and separate sanitary conveniences. There is also special accommodation for infectious cases, and a good supply of side-rooms, where special treatment such as prolonged narcosis, malaria, etc., can be carried out; these rooms, as well as the general wards, have access to open verandahs on to which the specially constructed beds, with which this hospital is equipped, can be wheeled.

Infirm and bed-ridden patients have their own units, but only "Elm House" for men is at present occupied. Here we saw some 25 elderly patients, only 3 of whom are actually bed-ridden, appreciating the many amenities of their cheerful and comfortable surroundings with the least possible restriction, in the charge of a mixed staff of 2 male and 3 female nurses.

In the admission hospital we noticed with pleasure the provision of quiet rooms where the less acute patients can read, write or work, and also the side-rooms with access to the verandahs. A common room for occupations is another excellent feature of this unit.

The male and female nursing service is under the direction of the matron with the assistance of a sister tutor, recently appointed, although not yet in residence. The facilities for training are so good, and the exceptional opportunities for specialized experience which will be available are so varied as to attract the best type of probationer. We therefore suggest that these advantages might well be made known to the heads of secondary and large private schools as a means to recruiting suitable nursing staff.

Clinical notes are kept in folders in the clinical room of each unit. These notes are most carefully taken and recorded in a special manner together with various laboratory reports. A sheet is also provided for nurses' notes made at stated intervals. With all the wealth of informative detail after admission we must contrast the scanty information about previous history, etc., which is available in the majority of cases. This vital information is impossible to obtain without domiciliary visitation, and we earnestly hope that the committee will appoint a social worker without much further delay. Not only is this officer required for the purpose above-mentioned and for similar help in connection with the out-patient clinics, but also as a "friend" in settling the patient during the critical periods immediately before and following discharge.

Apart from the 6 cases of tuberculosis there has not been any infectious illness during the period under review. Special precautions are being taken to prevent the introduction of intestinal diseases; all new admissions are subjected to bacteriological and serological tests at stated intervals and special attention has been paid to the vitamin content of the dietary in respect of its influence on the incidence of these diseases. Having in mind the infectivity of intestinal diseases we made special enquiry regarding the hygiene of sanitary annexes and about the disposal of soiled clothing.

While we are satisfied that both these matters are appreciated by the nursing staff we found that the materials used for cleaning lavatories are not always kept separate from those used for other purposes, and we also suggest that the efficiency of the steam disinfecter, through which all foul and infected linen is first passed, should be tested periodically by the insertion of a culture tube during the process.

Ten patients have died during the period covered by this report, 5 of whom were over the age of 60; in 7 instances the cause of death was verified by post-mortem. One of the deaths, due to asphyxia by hanging, was the subject of a coroner's inquest, and the circumstances have already been reported to our Board. Apart from this death and one from tuberculosis there is nothing of note among the causes of death.

Two women and 1 man have sustained serious injuries; all were fractures and accidental, except that of the man whose fracture was due to disease.



The present nursing staff consists of 44 male and 46 female nurses, 8 of each sex are on night duty; 7 female nurses are employed in the male wards.

Eleven of the male and 16 of the female nurses are registered in mental nursing, and 2 of each sex have passed the preliminary examination.

Dr. Ström-Olsen has to assist him Dr. S. M. Coleman as deputy superintendent, Dr. S. L. Last, the senior physician, and Dr. Nora Osborn as house physician.

We were accompanied throughout our visit by Dr. Ström-Olsen and the other members of his staff in their respective divisions with whom we were able to discuss many points of interest.

#### CITY OF EXETER MENTAL HOSPITAL.

*February 11th, 1937.*

Our visit to this hospital, which began yesterday, has been a most interesting one, and we congratulate Dr. Reid and the Visiting Committee upon the progressive lines upon which it is administered.

The homelike atmosphere of all the wards is most noticeable. Much is done to decorate them with plants and flowers. There is a plentiful supply of books, periodicals and daily papers. A number of games are played in the wards, and on the male side there is an excellent recreation room which has recently had a second billiards table installed. All wards are provided with wireless.

Perhaps because of the many comforts provided the patients at this hospital are unusually quiet and well-behaved. From what we have seen we are sure the treatment of patients is most kindly.

Occupations are well organized, and we visited with interest the occupation centre of the male side, and also the women's work-room. It is obvious that occupation therapy takes its proper place in the routine of the life of this hospital. The matron has recently begun drill and dancing classes, and although these are temporarily suspended owing to the influenza epidemic, it is hoped shortly to start them again. Special gym. dress is being made, and all patients are provided with rubber shoes.

The clothing of patients here is really excellent. We have seldom seen better suits and undergarments for male patients, and the female dress is also extremely good. There is hardly a trace of the institutional type of garment.

We visited the room which is devoted to hairdressing on the female side. The provision of such an amenity is most valuable, but we hope that it will be possible to improve its present equipment considerably. Modern hair washing basins with hot and cold water, an electric dryer and mirrors are needed as well as redecoration. Perhaps it would be possible to train the nurse in charge in hair waving.

The wash rooms in the various wards are without hot water. It would be a boon if at least one hot water tap in each could be provided. We have suggested to Dr. Reid the desirability of providing all patients with individual hand towels instead of the general roller towels now in use. Private patients have separate towels as well as some of the better type of rate-aided patients, and it should not be difficult in so small a hospital to make their use general. We were glad to hear that a new sluice room is to be put in in the sanitary annexe of the female infirmary. The wash room of the female private ward is inadequate in size, and we discussed with Dr. Reid the possibility of converting the adjacent unused bathroom for use as a cloak room to relieve pressure in the wash room.

On the male side we hope it will be possible gradually to abolish the use of spittoons.



There are at present 349 patients—171 men and 178 women—in residence. In addition 2 men and 4 women are out on long leave or on trial, giving a total of 355 on the statutory books. Eleven men and 7 women are voluntary patients, and 1 man is at present under treatment as a temporary patient. During 1936, of 58 direct admissions 24 were voluntary, 2 were temporary, and 32 were certified patients. It will be seen from these figures that the number of temporary patients is lower than for any year since the coming into force of the Mental Treatment Act, 1930. It is unfortunate that the benefits of temporary treatment are not better known in the City of Exeter, and we should like to suggest the possibility of some liaison between the mental hospital and the observation wards of the Public Assistance Institution, particularly with regard to the status of patients admitted to the mental hospital.

Thirty-eight men (15 service or ex-service patients), and 28 women are in the private category, and very comfortable private wards are available for them. These patients pay from 27s. 6d. to 50s. per week, the charge for rate-aided patients being 25s. 8d. The average weekly maintenance cost is 25s. 3d.

Overcrowding exists by day to the extent of 4 men and 13 women.

Twenty-three men and 10 women enjoy parole beyond the estate, and 29 men parole within the grounds. One ward on each side is administered on the open-door principle.

The present staff of nurses consists of 4 of each sex of charge rank; 25 male and 22 female ordinary nurses, and 4 men and 5 women on night duty. Eighteen men and 7 women are certificated or registered as mental nurses, and 8 men and 7 women have passed the preliminary examination. Here, as elsewhere, at the present time difficulty is being experienced in obtaining suitable female nurses, and the above figures show a shortage of 3 nurses.

The mortality rate for 1936 was 5.2 per cent., which compares very favourably with the average rate for all mental hospitals. Twenty-three patients have died since the visit of our colleagues on February 20th of last year. Eight deaths were due to heart disease, 4 to senile decay, 3 each to general paralysis and organic disease of the brain. Thirteen post-mortem examinations were made.

There were no fatal casualties or injuries due to violence. Three patients sustained fractures from accidental falls.

The general health of the patients has been quite satisfactory. During the past 6 weeks the prevailing epidemic of influenza has invaded the hospital. Up to date 67 patients and 42 members of the staff have been affected. The illness on the female side has subsided, but there are still 30 male patients ill chiefly in M.5 ward. They appear to be well cared for, but we notice that some who were sitting up in bed were not provided with bed jackets.

Two cases of enteric fever were notified in F.4 ward in October, 1 ending fatally. The origin of the disease was not discovered.

One patient died from tuberculosis; at the present time there are no known cases of this disease in the hospital.

New cases are admitted to wards 5 on the male and female sides. Both these wards are used as infirmary wards, and are the largest in the hospital. It seems unfortunate that cases of recent mental illness should be brought in contact with the chronic and senile patients who are normally accommodated in infirmary wards.

We paid a visit to the farm, and were very satisfied with the care taken to preserve proper hygiene and a healthy stock. It is proposed to install a modern sterilizing plant for milking utensils, and a basin with hot and cold water for the milkers' use.

Dr. Reid, the medical superintendent, continues to have the assistance of Dr. McPherson as assistant medical superintendent.



## GATESHEAD MENTAL HOSPITAL.

April 29th, 1937.

Our visit to this hospital has occupied the afternoon of yesterday and the whole of to-day. We have been much interested in all we have seen and in noting the progress being made here in different directions.

Now on the statutory books are the names of 466 patients. Homes have been found in which 2 patients are successfully boarded-out, leaving 464 (males 228, females 236) at present in residence. Of these, 10 are here on a voluntary, and 1 on a temporary basis. The advantage taken in this district of the benefits of the Mental Treatment Act, 1930, is seen by examining the numbers of voluntary and temporary admissions here within recent years.

								Voluntary.	Temporary.
1932	...	...	...	...	...	...	...	12	—
1933	...	...	...	...	...	...	...	12	1
1934	...	...	...	...	...	...	...	8	1
1935	...	...	...	...	...	...	...	8	2
1936	...	...	...	...	...	...	...	13	5

According to the figures before us, there is accommodation here by day for 411 patients (males 194, females 217), and by night for 469 (males 218, females 251). Thus, there is an overcrowding for men to the extent of 34 by day and 10 by night, while for women there is overcrowding of 21 by day, with excess of space for 13 by night. This overcrowding by day is apparent on both sides of the hospital and is made even more obvious by the obtrusive presence here of a number of mental defectives. This refers especially to the male side.

The weekly maintenance charge per head is 28s. for home patients and from 30s. 4d. to 52s. 6d. for private patients. The average weekly maintenance cost as last ascertained is 26s. 1½d.

We found the patients remarkably quiet, content, and, apart from requests for discharge, free from complaint. Nine per cent. of patients enjoy parole beyond the estate whilst almost an additional 8 per cent. enjoy parole within the extensive grounds.

The patients generally presented a well-cared-for appearance. The men were neatly dressed in well-fitting suits of varied patterns, but we suggest that the purchase and use of a trouser press would add to the length of wear and smartness of these suits. Female clothing is being modernized steadily, and out-door capes are gradually being replaced by well-cut coats. Cupboards, for the storage of coats, suits and frocks on hangers, are now fixed in all male wards, and are being procured for the female ones.

Wards and dormitories were everywhere bright, well kept, comfortably warm and well ventilated. Most wards were pleasantly decorated with bright flowering plants, and have the attraction of light coloured walls. This attraction might be further enhanced by the presence on the walls of striking scenic posters rather than the uninspiring pictures there now. In four dormitories on each side lavatory annexes affording observation by the night nurses are being installed. Washing facilities are satisfactory and the supply of clean individual hand towels is generous.

There is a good central library to which those patients who so desire come at least once a week and choose their own books. In addition in each day-room there is an adequate supply of available books which are also changed weekly and a number of indoor games.

Organized entertainments consist of a weekly sound cinema, a weekly dance, and a fortnightly concert—the latter usually by an outside concert party, but at times by the staff choral society. It is proposed, this year, to start sending patients on holiday, and between 30 and 40 patients are going, in groups of 10, for a fortnight to Redcar.



The dietary is full and varied, and on a three-weekly rota. We watched tea being served in one ward yesterday and dinner in another to-day. We were glad to learn that neither milk nor sugar is added to the tea in the general kitchen, but are placed on all tables. There are still no ward plate-warmers in use, but we hope that these will be introduced through time. Meat containers, in which meals are carried from the main kitchen to the wards, are without covers, and should, we feel, be fitted with some form of lid.

We paid a visit to the laundry, where the guard on the calender is in need of further protection, and where the steam jet, as at present fixed and used, is too high to be effective as the steam condenses before heating the bins or their lids. Recently the heat from the flue of an ironing stove set alight to the ceiling and roof by night. Smoke was observed through the window by a dormitory patient, and assistance was found by this patient awakening the nurse in an adjacent room.

New wings, which we inspected, comprising two additional wards on either side are in process of nearing completion, but progress in this work has been delayed owing to difficulty in deciding upon the lighting and heating systems. Other work, now in progress, includes the erection of staff cottages, an admission hospital and parole villas. The sports field is being enlarged, a bowling and putting green is being laid, and a third tennis court is being set out.

Freshly admitted patients are examined with considerable completeness, and a wide range of bio-chemical examinations is carried out, as a routine: including blood urea, sugar, bromine tests, blood counts and the Wassermann reaction. Treatment on various modern lines is in progress and a high-frequency fever inductor has been provided, but its use has not yet been possible owing to the delay in the decision as to the future source of the electric supply. Treatment by occupation is provided on both sides—in rooms which are either being extended or replaced; these increases in space are, however, quite inadequate for the number of patients who might be deriving benefit from this type of treatment, and we would suggest, also, that additional arrangements be made for the training of more nurses in the use of handicrafts: their services will be needed if a successful extension of occupation is to be achieved. A beginning has been made in the seasonal use of outdoor physical training for patients of both sexes.

X-ray work for this hospital has hitherto been carried out at a neighbouring sanatorium, but such apparatus will be included in the equipment of the new admission unit.

There is a regular dental service within the hospital, and as many as 20 sets of artificial teeth were supplied to patients last year.

To-day the percentage of patients under treatment in bed was 5·2 on the men's side and 9·3 on the women's. The care of all the sick is of a high standard, and we feel assured, from our inquiries, that nothing is left undone which may be expected to promote their recovery or ameliorate their condition. As far as practicable bed patients are treated out of doors, and some by night also.

There have been 2 partial fractures, since the last visit, among women patients, 1 caused by slipping, and the other by a scuffle with another patient. There has been no occasion for an inquest.

During February and March 27 women and 3 nurses on that side were attacked by influenza. One patient of each sex is, at present, undergoing open-air treatment for tuberculosis of the lungs; these are the only active cases.

The number of deaths has been 11, and post-mortem examinations were carried out on 6 of these. Two men died of dementia praecox, and 1 patient from each of the following diseases:—Lymphatic leukaemia, cerebral abscess, tuberculosis (all male), general paralysis, pneumonia, uraemia, pulmonary oedema, arterio-sclerosis and carcinoma (all female).



A valuable adjunct to the examination of the newly-admitted patient is the history obtained by the social worker which describes the patient's home environment and the social factors which may have contributed to the break-down and which requires to be remedied before the patient can profitably return home. This part-time officer also assists at the out-patient centre which the local authority has provided by renting quarters at the Royal Victoria Infirmary in Newcastle. We regret to learn how little use is made of this opportunity of obtaining treatment for mental ailments, and we trust that means may be adopted for giving this opportunity due publicity—particularly among the medical profession of the County Borough.

The nursing staff of the wards consists of 43 men and 42 women nurses; 35 of the former and 15 of the latter are registered in mental nursing, and 3 and 15 respectively have passed the preliminary examination for the certificate. Eight male and 6 female nurses are of charge rank. On the night of April 27th/28th there were 4 nurses on duty on each side.

Dr. Bamford is assisted by Dr. T. F. Main, to both of whom we are grateful for much ready assistance in the course of a pleasant visit.

#### CITY OF HULL MENTAL HOSPITAL.

*March 9th, 1937.*

Throughout our visit yesterday and to-day we have been favourably impressed with the pleasant relations existing between the patients and staff and with the successful efforts to brighten the wards with flowers and plants. The clothing, and in some wards, the furniture, were less satisfactory. A change in the cut of the women's print frocks is much needed in order to render them somewhat more similar to the frocks in general wear outside.

A recently acquired stock of men's suits is awaiting issue; they are, however, of a heavy material, and we are sure the issue of flannel trousers and sports jackets would be welcomed by the younger men.

We are glad to learn that Dr. MacInnes is planning an individual issue of underwear, suits and towels on the men's side. The ward stocks of overcoats are well below the number of patients; we gather, however, that certain patients object to wearing them.

The provision for the storage of clothing in those wards where we examined it is cramped and calls for some reorganization.

Some mattresses which have become thin in the centre need repair, and we believe that a larger waterproof sheet would enable the ends to be secured to obviate folding under the patient.

Radiators and their supply pipes generally were so hot as to require some form of guard.

Wooden labels have been made for some 40 rooms to indicate the floor space.

There are to-day in residence 466 men and 491 women patients, a total of 957. This number involves the existence of an overcrowding to the extent of 98 by day and 58 by night on the men's side and of 85 by day and 27 by night on the women's side. One room in the latter's sick ward contained 35 beds last night, an apparent excess of 14.

One villa for men and another for women are open to the grounds of the hospital; 18 men and 24 women enjoy parole within the estate and 20 men are allowed parole beyond it.

The admission hospital is still unoccupied by patients and in the hands of the contractors, but the X-ray and electrical therapy and dental rooms are in use in this building. The pathological laboratory has not, however, been equipped, nor has an assistant for this work been appointed.



The ventilation of several rooms adjacent to the main kitchen, where certain patients are employed all day is only by the roof, and seems far from sufficient.

The death rate for the year ending December 31st, 1936, was the low one of 43 per thousand. Since the last visit 6 months ago there have been 26 deaths, followed in 18 cases by post-mortem examinations.

The principal causes of death were cardiovascular disease 16, and pneumonia 5. Two inquests were held, one in the case of a patient who hanged himself after absconding from a verandah, and the other in the case of a patient who died shortly after admission, and where death was found to be due to natural causes. Particulars of these cases have already been supplied to our Board. The hospital has been entirely free from enteric fever and dysentery, but during February an outbreak of influenza occurred affecting 117 patients and 14 members of the staff; all made satisfactory recoveries.

At present there are 6 male and 5 female patients suffering from tuberculosis in active form, and, when suitable, undergoing open-air verandah treatment. In 4 of these 11 cases the tubercular condition has been diagnosed since the last visit. Yesterday and to-day there were 132 patients (male 56, female 76) being nursed in bed; this figure represents 13 per cent. of the total patients in residence. All were in receipt of kindly and sympathetic care; the introduction of individual medicine cards would be an advantage.

During the period under review there have been 10 major casualties, comprising 7 fractures, 1 sprain and 2 lacerated wounds. Of these 7 were caused accidentally, and 3 were sustained during struggles with other patients.

We have been pleased to see the interest taken here in the therapeutic use of handcrafts, physical exercises and games: we saw the latter being played after tea by men in the concert hall. There is scope, however, for the more comprehensive development of these valuable forms of treatment, and Dr. MacInnes has it in mind. We also discussed with him various features of the physical training.

During 1936 the direct admissions numbered 190 (88 men and 102 women). Of this number 109 came through the Public Assistance institutions and 72 from their own homes. Of the 190 patients 37 were voluntary (12 fewer than in 1935) and 8 men temporary (the smallest number since 1931).

No patient among the 15 allowed out on long leave or trial last year was granted any money allowance. One woman is at present boarded out under Section 57 of the Act of 1890 and 4 others are away on long leave.

The average weekly cost, as last ascertained, was 24s. 4d., and the weekly maintenance charge for home patients is 25s. 1d. For voluntary and temporary private patients the charge is 25s. 8d. and for private certified patients 42s.

The present nursing staff consists of 36 charge nurses, 98 ordinary nurses and 23 nurses on night duty. Day nurses here work on a two-shift system. Eighty-five members of this staff are certified mental nurses, while 24 have passed the preliminary examination.

We have visited the farm which exhibits many progressive features and are glad to find that the milk supply, which provides also for 3 other hospitals, affords an allowance of an average of at least a pint per diem for each patient in this hospital.

The diet tables and the menus are generally very satisfactory, but we would suggest the issue throughout the year of some fresh fruit.

Dr. MacInnes holds an out-patient clinic in Hull every week, at which there is an attendance of about 10.

He is assisted at present in the hospital by Dr. D. M. Main, his deputy, and Dr. M. Stephen.



IPSWICH MENTAL HOSPITAL.

*November 24th, 1937.*

We have spent yesterday and to-day visiting this hospital, where overcrowding and its consequent hardships have proved a hindrance in some respects to progress and modern forms of treatment. Many alterations and additions of a structural nature have been effected since the last visit, and others are in course of completion.

Overcrowding still persists at this hospital, and according to the figures we have before us there is a deficiency of accommodation by day for 1 man and 72 women, and by night for 40 women. In view of this we were interested to learn that the problem has been considered, and that an attractive villa which is to accommodate 40 women will very shortly be ready for occupation. This should enable much better classification to be carried out on the female side of the main building, where there is only the choice of 3 wards and their day-rooms. The classification on the male side is likewise handicapped but is not so noticeable as there is as yet no overcrowding.

There appear on the statutory books the names of 381 patients (160 men, 221 women). The private patients number 43, and of these 13 belong to the service or ex-service class. All these patients were in residence with the exception of 3, who were away on leave or trial. The weekly maintenance charge per head for private patients varies between 30s. and 42s., and that for the home patients is 26s. The average weekly maintenance cost as last ascertained is 23s. 2 $\frac{3}{4}$ d.

The patients were well and suitably dressed, but we would like to suggest an issue of pullovers to the male patients as the temperature of the wards in cold weather must be quite low. These pullovers, in addition, would give the patients a neater appearance than is at present only fairly well maintained with the ordinary collar and tie. The provision of a steam press in the tailor's shop would go a long way to preserve in the men's suits a tidier appearance.

We discussed the reorganization of the heating arrangements of the hospital with Dr. Banbury, and he informed us it had not been overlooked, and that provision had already been made in the existing building alterations for extra heating apparatus.

The day-rooms and dormitories were well kept, comfortably furnished and generally well decorated. Female ward 2 and the single rooms of female ward 1, however, are in need of re-decoration. New verandahs have been provided for the patients belonging to both male and female wards 1. The patients' indoor amusements and out-of-door recreations have been studied, but a great benefit to the patients would be the installation of batteries of lockers in which they could keep their personal belongings wherever space is found available.

For the year 1936 and for the current year (11 months) the direct admissions have numbered 88 and 94. For these respective periods approximately 63 and 54 per cent. were admitted on a voluntary basis, and 11 and 14 per cent. as temporary patients. From these figures it can be seen that the use of both sections 1 and 5 of the Mental Treatment Act, 1930, is well appreciated in the area served by this hospital. It is with satisfaction that we are able to record that the above percentages of admissions under the provisions of the Mental Treatment Act were contributed to, in each one, not only by patients coming direct from their own homes, but also by patients arriving from the public assistance institutions.

Dr. Banbury holds an out-patient clinic weekly at the East Suffolk and Ipswich Hospital, and, in addition, visits in an honorary consultant capacity, the wards of Heathfields Municipal Hospital. There is no social worker on the staff of the hospital, but the Ipswich Mental Welfare Association gives its valuable services in this direction, as well as at the out-patient clinic.

Among the alterations and new buildings completed special reference must also be made to (a) a pair of semi-detached staff villas and porter's



lodge, (b) new central stores, offices and canteen, (c) new butcher's shop and two refrigerators, and (d) now nearing completion, an annexe to the main kitchen where the washing of dining-room crockery will be carried out. The last two items will be a great asset, and should relieve conditions in the kitchen, where still further relief may perhaps be afforded by reorganization of present arrangements. The temporary storage of foodstuffs is a particular point we have discussed with the Medical Superintendent.

Further items which we have raised and which we feel call for consideration are the provision of a sluice basin in the bathroom annexe of male 4 dormitory. In the same annexe where some patients undress at night it should be possible to erect a wooden rack for their day clothes. On the female side, too, in ward 3, a sluice pan is required, and, by removal of a bath which is no longer used, it might be possible to provide additional w.c.s. and hand-basins. While commenting on lavatory arrangements we hope that efforts will be made to give each patient individual face towels, and that cabinets will be provided for dental requisites.

While we have already referred to the general state of overcrowding we feel that we must refer particularly to the crowded conditions existing in the female occupation rooms. Thirty patients on an average are occupied in various handicrafts under the direction of 2 nurses, and the work carried out is of an excellent standard. The limitation of space, however, prohibits the employment of others who could be usefully occupied at this centre. On the male side we saw a number of patients who would benefit from individual training in handicrafts, but at the moment there is no centre to which the more responsive ones can go. While the absence of such a centre may be the main reason for the limitation of this form of treatment we feel that an effort might be made to introduce into the ward handicrafts of the simpler types. We know, too, some of the reasons which have resulted in the slow progress made in physical exercises, and hope, therefore, that means will be considered of providing facilities for these joint forms of treatment.

We are glad to record the complete absence of epidemic or zymotic disease since the last visit, and of other infective disorders; there was only 1 case of erysipelas. One patient diagnosed as suffering from pellagra is responding favourably to treatment. There have been 2 fractures, 1 of the lower limb caused by falling in a fit, and 1 of the upper limb by slipping on the ward floor.

The mortality rate for 1936 was 7·7 per cent., and in the respective sexes the percentage was 10·8 for men and 5·3 for women. Deaths during the period under review totalled 34, 20 men and 14 women. Of these in males and females respectively, 10 and 6 were due to heart disease which was by far the predominant cause.

Post-mortem examination was made in approximately 60 per cent. of these cases.

At the time of our visit the number of patients in bed was 19 on the male side and 28 on the female side.

The nursing staff consists of 28 male nurses and 31 female, of whom 19 and 15, respectively, are certificated or registered as mental nurses. Of the total number 3 of each sex are graded as charge nurses.

Dr. Banbury has to assist him Dr. A. H. Maccallum as deputy superintendent, and Dr. J. B. Lloyd as junior medical officer. We have to thank Dr. Banbury for every assistance afforded us throughout the course of our visit.

#### CITY OF LEICESTER MENTAL HOSPITAL.

*May 19th, 1937.*

The retirement of Dr. J. Francis Dixon is an important landmark in the history of this hospital. He has occupied the post of medical superintendent with distinction for more than 25 years. During this period the number



of patients has increased steadily from approximately 600 to the present number, which exceeds 1,000. In the course of our visit we were impressed by the respect and esteem in which Dr. Dixon is held by his staff and patients. The patients' welfare was obviously his chief concern, and whilst he was Superintendent he effected marked improvements in such matters as the patients' dietary, clothing and recreations. He adopted progressive measures also, in extending patients' week-end leave to their homes; the average number during the last year amounted to 30 or 40 of each sex weekly. We hope Dr. Dixon will soon be restored to normal health, and that he will enjoy many years of leisure.

T. Wishart Davidson, M.B., B.Ch., D.P.M., who has been deputy for some years, succeeds to the post of medical superintendent, and our visit coincided with the first day of his taking over his new duties. We wish him every success. He approaches the work of administration of this hospital at a time when many important developments are envisaged.

Recently the new dairy farm buildings were completed and are now in use. In all essential respects these buildings constitute a model and up-to-date farm where everything is carried out on scientific and hygienic lines.

The steamer-house at the general kitchen has been altered and new equipment has been installed therein—an improvement greatly facilitating the preparation of food for increasing numbers.

Now in progress is the erection of a male parole villa, and contemplated in the near future is the erection of a reception hospital and of a sick hospital. It is hoped that these extensions will not be long delayed. While the accommodation for convalescent and parole patients is excellent, the nursing facilities for recent and sick patients are decidedly inferior to those now found at many hospitals. Pending these extensions we think it is desirable that wash-basins should be fixed in all wards where sick-nursing is done. At present, in the male infirmary ward, all water for domestic purposes has to be carried from another ward.

The sanitary annexes were, without exception, well kept. It is regrettable, however, that in the main building there is no supply of hot water conveniently placed for the patients' use. We were surprised to be informed that in some of the annexes the hot water supply had been cut-off. The provision of one hot-tap in each annexe would serve the purpose.

Throughout the hospital there are a number of old-fashioned padded rooms which, we understand, are no longer used as such but as ordinary single rooms. We cannot help thinking that the dismantling of the pads from the walls would ensure more hygienic conditions in these rooms. We also feel that, where it is the custom to sleep patients on the floor of single rooms the provision of two mattresses would ensure greater comfort.

The dormitories generally looked pleasing and comfortable. There is, however, considerable overcrowding where patients requiring continuous observation are accommodated. Although, according to the figures returned to us, there is only lack of accommodation by night for 45 men (while there is excess of space for 39 women), the overcrowding to which we refer appears to be due to the placing of as many patients as possible in the observation dormitories. From the nursing standpoint, we doubt the advisability of crowding together noisy and difficult patients.

Though many of the wards on the female side are old in structure, and have a type of window that does not permit free ventilation, the day-rooms look comfortably furnished, and are tastefully decorated; cut flowers on the tables add greatly to their attractiveness. Each ward has a liberal supply of books which are changed periodically. It was interesting to learn that, in addition to the regular contribution of books from the Red Cross Society, the hospital receives several hundred volumes each quarter from the city library—the choice of these books being made by the medical superintendent. Patients' needs in the way of daily papers and indoor games are



well catered for, but in a few wards only is there a wireless set supplied by the hospital. We hope the Committee will provide each ward with a wireless set or a gramophone.

The patients' clothing is unusually good and varied in pattern and design. The women are fitted individually for their frocks, which are made in the sewing-room, and the underclothing, which is bought by contract, is, as far as possible, individually marked. Many women wear their own coats. For those who do not, the use of shawls is steadily being discarded and coats supplied. In convalescent and parole wards there is ample cupboard and drawer space for storing the patients' personal belongings, but in the more chronic wards further provision of lockers and drawers is required.

We visited the laundry, where there is a good system of sorting articles on entry. In the foul laundry it seemed to us that the steeping tanks and the steam jet for disinfecting bins should be situated at the in-take end of the autoclave, and not, as at present, inside the wash-house.

We were glad to see a good number of patients, both males and females, occupied in the utility departments of the hospital. The maintenance at full strength, with the labour of chronic patients, of such departments as the farm, laundry, sewing-room and workshop seems to be a sound administrative, as well as therapeutic policy. Such tasks as the preparation of sites for new buildings, the construction of new roads and the laying-out of bowling greens and tennis-courts would afford much scope for organizing outdoor work for groups of male patients during the next few years.

The organization at this hospital of therapeutic handicrafts is much hampered by the lack of suitable work-rooms. At the time of our visit this branch of work was practically at a standstill on the women's side because the occupation officer had left recently, and the vacancy had not yet been filled. On the men's side, small groups were employed at basket-work and the making of paper bags; but obviously, there is scope for much extension of similar occupations.

The physical training of much retarded patients deserves special commendation. It is most encouraging to see the results already achieved with some young adults of the schizoid type. Possibly patients would welcome the introduction of more variety such as occasional musical accompaniment, picturesque flag exercises, ball games and country dancing.

On the statutory books there are now the names of 429 men and 601 women. Of these, 37 men and 38 women are here on a voluntary basis: the remainder are under certificate. All were in residence at the time of our visit.

During 1936, there were 225 direct admissions, of whom 82 came on a voluntary and 1 only on a temporary basis. Of these 225 patients, no fewer than 174 were admitted direct from their own homes. The steady increase, which is most gratifying, in the number of voluntary admissions is due, in no small measure, to the out-patient clinics. These are held at the parole villas (Tower House and Francis Dixon Lodge) and at the Leicester Royal Infirmary. During 1936, 123 patients were seen at the clinics, and of these, 30 were admitted to the hospital as voluntary patients and 3 under certificate.

The weekly maintenance charge per head for home patients is 24s. 6d. and for private patients from 25s. 1d. to 63s.

Apart from the outbreak of influenza early this year the general health of the patients has been good. No patients have suffered from enteric fever or dysentery. Two male patients are, at present, known to be suffering from tuberculosis. Both are ambulant cases but every precaution is taken to prevent a spread of infection.

At the time of our visit only 20 men and 43 women (i.e. 6 per cent. of the total number in residence) were being nursed in bed. All were in receipt of kindly nursing care and good medical attention. We were particularly pleased with the full and painstaking notes in the medical case-records.



There is no social worker attached to this hospital. In place of this, it is the practice for charge nurses to visit the homes of new admissions.

In some wards, the type of medicine-cupboard in use does not ensure adequate precautions being taken by the nursing staff in the handling of poisons and dangerous drugs. We discussed this matter with the Medical Officers and we are satisfied that steps will soon be taken to conform with the new regulations of the Dangerous Drugs Acts.

The death rate for the year 1936 was as low as 5·7 per cent. During the period under review there have been 52 deaths, followed in 88 per cent. of cases by post-mortem examination. The principal causes of death were:—pneumonia, 16; heart disease, 12; and organic brain diseases, 11.

Only 1 inquest was held; a patient, while away from the hospital on parole, committed suicide by drinking Lysol.

Since last August, there have been 12 major casualties (males 2, females 10). Whilst it is inadmissible to draw conclusions from statistics relating to such a short period, it is to be noted that this number of casualties gives a much higher incidence than the mean rate for all mental hospitals. These accidents were comprised of 10 fractures and 2 dislocations—9 being due to accidental falls and 3 to struggles with other patients.

The present nursing staff consists of 9 sub-officers (M. 3, F. 6), 20 charge (M. 7, F. 13) and 107 ordinary (M. 45, F. 62) nurses. On the evening of the first night of our visit there were 7 nurses on duty on each side.

Probationer nurses are prepared for the general nursing council's examinations. Forty-nine nurses (M. 26, F. 23) hold this certificate and an additional 40 (M. 18, F. 22) have passed the preliminary examination.

We are grateful to Dr. Davidson and his colleagues for facilitating our enquiries in every possible way.

#### CITY OF LONDON MENTAL HOSPITAL.

*September 21st, 1937.*

Our visit to this hospital has unfortunately coincided with the absence on leave of the medical superintendent, Dr. Wm. Robinson. Dr. R. C. Forrester, the deputy medical superintendent and Dr. B. Cates accompanied us throughout our visit, however, and gave us all the information and assistance we required; to these gentlemen we desire to express our thanks.

Yesterday there were 637 patients (263 M. and 374 F.) resident in the hospital. Of these 85 (45 M. and 40 F.) are voluntary, and 10 (2 M. and 8 F.) are temporary patients. No less than 432 of the patients now on the hospital books are private patients. During 1936 direct admissions numbered 72 (40 M. and 32 F.) and of these as many as 50 (32 M. and 18 F.) were voluntary patients. Only 2 men and 5 women were admitted as temporary patients in that year. Forty-four patients (23 M. and 21 F.) departed or were discharged, including 20 men and 8 women who were voluntary and 4 women who were temporary patients, and of these 5 were considered to have recovered.

During the same period 36 patients (21 M. and 15 F.) died. The high proportion of admissions on a voluntary basis is very gratifying.

In the course of our visit we saw, we believe, all the patients in residence, and with all who desired to speak to us we conversed. One patient was given a private interview, and many had interviews with us of a semi-private nature. Few complaints, none of which appeared to us to be well founded, were received, and in general we found patients quiet and orderly, neatly dressed and as contented as their respective mental conditions allowed.

In former years our colleagues have commented favourably on the clothing provided for both men and women, and with their observations we desire to concur. It appeared to us, however, in the case of the men, that



during the summer months some sets of light cotton underclothing might be appreciated by many, and we hope that before next summer this point may receive consideration by Dr. Robinson and his committee.

The women are allowed to select their own frocks, which are then fitted, and both men and women have their own sets of individual underclothing.

A thread-marking machine has been purchased since the last visit, and household linen is now being marked by this means.

The dietary is particularly generous and good, and since all working patients receive a weekly money payment, they have the means of purchasing any extras which they may desire. We should like to mention particularly the care given to the important matter of sick diets. In the course of our visit we saw the café, and can readily believe that this amenity is greatly appreciated.

On the female side occupation therapy continues to make good progress. In addition to the large number of patients who practice handicraft work of many kinds in the wards, 30-40 find employment in the sewing rooms, while in the occupation centre, not long opened, 60-70 women of the more regressed type are daily occupied in simpler work in great variety.

On the male side, about 60 patients are employed on the farm and in the gardens, but at present the more introverted men are without occupation. It is, however, intended, we understand, to open shortly as a male occupation centre the present lecture theatre, and the very important question of staff in this connection is engaging the attention of Dr. Robinson.

Physical training classes have been found very beneficial in many mental hospitals to supplement occupation therapy in its sedentary forms, and we trust that the question of inaugurating classes for men and women here will also receive attention.

There is an excellent library comprising between 2,000 and 3,000 volumes, and the recently opened reference library is a most valuable addition to the hospital's amenities. Here patients of both sexes associate, and it is evident that a number of men and women much appreciate the opportunity they now have to read and write in quiet and comfortable surroundings.

Since the last visit the dormitories in the annexe have been redecorated, and they now present a most attractive appearance: the recreation hall is in process of being redecorated at the moment.

The wards in general are very well kept, and are in good order and comfortable. We were particularly glad to note the very large proportion of side rooms, the doors of which can be opened from the inside, but in this hospital as large a measure of liberty compatible with reasonable safety has long been the rule, as is shown by the proportion of fully open wards (3 on either side of the hospital) and the large number of men and women who enjoy full parole.

Every patient has an eiderdown, and since these are of very many different colours and patterns, the appearance of the dormitories and side rooms is most attractive.

We understand that the question of fitting a basin with hot and cold water in the female infirmary ward, adjacent to the verandah, has been under consideration, and we think that such an addition would be a great convenience to the medical and nursing staffs.

Since the last visit, in addition to those already mentioned, the more important additions and alterations include the conversion of a cycle shed on the female side into a mortuary for emergency use at night, the provision of a new central wireless set, and the fitting of additional radiators in female wards 3 and 4.

At present the hospital is being re-wired, and the verandah in female ward 3 is being renewed.

In contemplation is the provision of a hairdressing room, and of a sterilizing room for the operating theatre, while the committee have under consideration the question of erecting an admission hospital.



Yesterday there were 78—or 12·2 per cent.—of the patients under treatment in bed, many of whom were on the verandahs. Their medical and nursing care were of a high standard: 2 patients are receiving special treatment by malarial inoculation for general paralysis.

Three patients on each side of the hospital are living under sheltered open air conditions on account of tuberculosis, and for them, as well as for those few who are regarded as possible sources of intestinal infection, detailed precautions are taken regarding their various eating and drinking utensils and lavatory provision.

Last August a patient who resided alternately in male ward 2 and in the male infirmary ward died of an illness having certain features and reactions of enteric fever: the other patients in both these wards were examined as to their excreta and agglutinations, and were inoculated against this disease. No other case arose.

In January and February this year influenza attacked 21 men and 14 women patients: three of the former died.

Since the last visit 3 men and 7 women have met with accidents involving fractures; 1 of the women was pushed over by another patient, while all the other accidents were the result of slipping. The femur was the seat of fracture in 7 cases and the forearm in 3. The ages of the patients ranged from 29 to 82, 5 being over 60. No fatality has resulted from these falls.

An inquest was held in the case of the patient who died in November from strangulation, the circumstances of which have been fully reported to our board.

The death rate during 1936 was 78 per 1,000 on the male side, and 41 on the female, or 57 per 1,000 for the entire hospital, the rate for the public mental hospitals of England and Wales being 68; 64 deaths have occurred since the last visit 20 months ago, and in 10 cases post-mortem examinations were held.

Cardio-vascular disease accounted for 39 of these deaths, malignant disease for 6, and pneumonia for 5.

One woman died from a self-inflicted wound while on leave from the hospital.

The present ward staff of nurses consists of 43 men and 68 women, 7 and 9 respectively being of charge rank, while 6 men and 11 women are on night duty.

Over 67 per cent. of the men and over 38 per cent. of the women nurses are certificated.

We feel we cannot conclude our report without saying that everywhere we observed with the greatest pleasure the very great and careful attention which is paid in the hospital to the individual wishes and idiosyncrasies of patients, and the obvious desire on the part of both medical and nursing staffs to make those in their care as comfortable and contented as possible.

#### MIDDLESBROUGH MENTAL HOSPITAL.

*April 27th, 1937.*

We have to-day completed our visit to this hospital which was commenced yesterday afternoon and are glad to record the favourable impression we have received of the good and kindly care which is given to the patients and of the steady and continuous effort here made to advance their welfare and to make efficient use of the advantages of medical progress.

During 1936 the direct admissions numbered 100 (43 male and 57 female) of whom 23 were in the voluntary and only 3 in the temporary class. The



local use of the Mental Treatment Act, 1930, is reflected in the following numbers of admissions under sections 1 and 5 in the previous 5 years.

								Voluntary.	Temporary.
1931	...	...	...	...	...	...	...	0	0
1932	...	...	...	...	...	...	...	0	0
1933	...	...	...	...	...	...	...	4	1
1934	...	...	...	...	...	...	...	7	0
1935	...	...	...	...	...	...	...	24	0

Since the beginning of 1937, 11 voluntary and 3 temporary patients have been admitted. Of the 17 voluntary and 38 certified patients who left or were discharged last year, as many as 42 are classed as recovered. During the same year 36 patients were allowed out on trial of whom 4 men received money allowances: we understand that the other patients did not need such help. Including 2 women now away on trial, there are to-day on the books of the hospital the names of 255 men and 250 women: 6 of the former and 10 of the latter are voluntary patients and 1 woman temporary. Thirty-nine are private patients: 30 of the 32 men in this number are service or ex-service patients. Seventy-nine patients are chargeable to the county borough of South Shields.

The total accommodation in the wards is returned as 528 by day and 438 by night and on this basis the present number of patients involves an overcrowding by night of 39 men and 28 women and an excess of accommodation by day equivalent to space for 9 men and 14 women. We gather, however, that the night accommodation does not take into account the space vacated by the nurses who removed from their quarters on the wards to the new nurses' home.

The weekly maintenance cost as ascertained on March 31st was 24s. 3.3d. and the charge for home patients is 23s. 11d. while that for private patients ranges from 28s. to 52s. 6d.

We have seen a few patients who would be more appropriately placed in a colony for mental defectives, in particular a youth of 20 who is said to have suffered from epilepsy prior to admission.

The death rate for the year ending December, 1936, was 118 per 1,000 for men and 61 for women, making an average of 91. This is in excess of the average for the public mental hospitals of England and Wales but almost one third of the deaths occurred in patients over the age of 60.

Since the last visit, there have been 42 deaths (male 27, female 15), followed in 17 cases by post-mortem examination. The higher proportion of male deaths is, to some extent, explained by an outbreak of influenza early in the year, affecting 117 men but only 30 women, and ending fatally, by chest complications, in the case of 7 men. Among the other main causes of death were heart disease 15, general paralysis 6 and epilepsy 3.

Three deaths were the subject of inquests, 2 being due to accidents sustained prior to admission and a third being a case where a verdict of death from natural causes was returned.

Only one major casualty has occurred, that of a fractured forearm due to an accidental fall of a female patient.

Apart from influenza, the general health of the patients has been good and the hospital has been entirely free from epidemic disease. At present 5 patients (male 3, female 2) are suffering from tuberculosis in active form and 11 others (male 5, female 6) are under observation as suspected cases. All these are in receipt of extra diet and, where suitable, are undergoing open-air verandah treatment. It may be found desirable to devise means for the more complete segregation of all tuberculous patients. We observed that 3 of 1 group of 4 such patients had lived for a considerable time in ward A.1 on the men's side previous to the onset of this disease. Moreover, overcrowding is evident in this ward and the atmosphere was, this morning, in need of improved means of ventilation.



At the time of our visit 29 men and 26 women, that is 9·8 per cent. of the total patients in residence, were being nursed in bed; all were in receipt of skilled medical and nursing attention.

We could not but notice that oral sepsis is a prominent feature in a large number of patients here and we reiterate the hope, expressed by our colleagues in the 2 previous reports, that the appointment of a visiting dentist, paying regular visits, may be considered.

A new laboratory has been built and suitably equipped for all necessary histological, bacteriological and bio-chemical examinations. As a result the routine investigations conducted on all new admissions will, in future, be even more complete and more detailed than at present.

Daily physical exercises, in the open, when weather permits, play a large part in the treatment of patients in this hospital and this afternoon we watched a class of 19 men, suitably clad in vest and shorts, give a good demonstration of one method of re-learning co-operation with their fellows. Handicrafts, also, are encouraged in some wards, especially on the women's side, but we have discussed with the medical superintendent the need for extension of treatment by occupation and the importance of this very valuable form of medicine.

Since the visit paid in September male ward A.2 has been redecorated and its appearance is now much brighter than that of the other wards on either side which are all, however, very tidily kept. Slop sinks have been fixed in the sanitary annexes and new urinals on the men's side. The dormitories are in proper order and the bedding clean and in good condition.

We were surprised to see so few flowers or potted plants and bulbs in the wards. The day rooms have been wired for broadcast reception but, so far, only 1 set has been supplied to each division and no gramophones have been provided. There are, however, table tennis and other diversions and the numerous jig-saw puzzles are much appreciated. A skittle alley is in course of construction for the men and pleasant modern quarters are nearing completion for the accommodation of 10 male nurses, with bedrooms on the first floor and recreation, mess and billiards rooms below.

The training of the junior nurses has been advanced by the erection and equipment of an excellent lecture room. Of the staff of 47 male and 41 female nurses, 34 and 10 respectively are registered in mental nursing. Seven nurses on each side are of charge rank and the number of nurses on duty last night was 4 on the men's side and 3 on the women's.

Dr. Drake-Brockman continues to have the assistance of Dr. J. F. Riches to both of whom and to Mr. Hales we are much indebted for ready assistance throughout our interesting visit.

#### CITY OF NEWCASTLE-UPON-TYNE MENTAL HOSPITAL.

*May 27th, 1937.*

We have spent 2 days on the annual visit on behalf of our Board to this hospital. We have been much interested in all we have seen, and we are satisfied that this hospital continues to be well maintained under able and progressive administration.

Reference has been made in previous entries to the room for appreciation in this city of the advantages to be gained from the Mental Treatment Act, 1930. It is of interest to record below the percentages of direct admissions during the years 1936 and 1935 who were received under section 1 of that Act. The direct admissions for these years were 160 and 157 respectively. Approximately 12·5 per cent. of the former and 13·5 per cent. of the latter figures were received on a voluntary basis. Of the patients admitted during 1936, 19 came direct from their own homes, 16 of them were voluntary patients. The remaining 141 admissions were sent from various institutions, and of these, only 4 were admitted under section 1 of the Mental Treatment Act.



No temporary patients have been admitted to this hospital in either year—a matter of some consequence. Dr. MacPhail discussed with us the proposals he has in mind for further familiarising the medical practitioners and relieving officers concerned with the benefits of this Act.

There are on the statutory books the names of 1,093 patients, 607 men and 486 women, all of whom are under certificate excepting 15 men and 6 women who are on a voluntary basis. Private patients number 58, and of these, 46 belong to the service or ex-service class. Six patients were away on leave at the time of our visit, and, with the exception of these, we have seen all the patients, and have given them opportunities of making any statements if they so desired. One private interview was granted.

The weekly maintenance charge per head for home patients is 21s., and that for private patients is 29s. 2d. The average weekly maintenance as last ascertained is 20s. 5d.

The overcrowding at this hospital by day consists of a deficiency of accommodation for 37 men and 67 women, and by night for 17 men and 22 women.

Throughout the hospital we found that all the dayrooms and dormitories were very well kept, and that careful attention had been given to a suitable supply of flowers and plants. The sanitary and ablution annexes were in a satisfactory state, and well ventilated with the exception of 1 in ward F.7, and another in ward M.7, both of which, we understand, are to be re-organized. The ward and villa gardens were in good order, and presented an attractive appearance—especially on the male side where 2 of the gardens had a magnificent show of flowers. A well designed solarium leading into the garden of ward F.1 has now been completed and is to be furnished as soon as possible. Each ward was well furnished, and it was interesting to see in addition to good furniture which had been re-conditioned in the upholsterer's shop, many attractive and useful new pieces of furniture which are now being made at this institution. A few of the single rooms are used as privilege rooms, and in these we would like to see the addition of some articles such as a chair and locker.

There is a good supply of daily newspapers, weekly periodicals and books in every ward; some wards have the additional advantage of an evening paper. Dr. MacPhail discussed with us a scheme of appointing a librarian, and of starting a central library. We hope that this will be accomplished in the near future as it would undoubtedly be an asset to the hospital and benefit to all. The practice now prevailing is that the patients have their books taken to their wards or villas where they are changed only every month or 6 weeks. The new scheme, when it comes into operation, should facilitate more frequent changing.

Each ward has its own wireless, and is well supplied with indoor games, and the patients have a weekly entertainment consisting of either a "talkie" cinema performance, a dance or a social in the recreation hall. There are "club" wards on each side where the better behaved patients can foregather in the evenings for card games, table-tennis, etc.

Both the male and female side have a central dining hall in each of which we saw a good dinner being well served and obviously enjoyed. These halls only accommodate about 40 per cent. of the patients, the remainder having their meals in their respective day rooms. In connection with the serving of meals in the latter we would like to recommend the installation of some type of plate warmer.

Three villas are run on the "open door" principle. Two of them, occupied by men, are open to the hospital grounds, and the third, a female villa, is open to its own garden. Twenty men enjoy parole beyond the estate, and an additional 60 men have parole within the grounds.

The clothing of both men and women is above the average. All suits and frocks are made in the workrooms, are of good materials and are, as



far as possible, individually fitted. Good care of clothes, by means of rods and hangers, is a feature of every ward. On the whole the patients presented a neat, tidy and well cared for appearance—especially the women, for whom a hairdressing saloon has recently been opened. A full-time assistant is employed here, and each patient receives attention once a fortnight.

Therapeutic occupations are well established, although it is admitted that the rooms available (1 for each sex), are not large enough to permit of expansion, and that storage accommodation is limited. Each room is in the charge of an occupations officer, and excellent results are obtained in stimulating the interest of apathetic patients. A wide variety of handicrafts is engaged in and a good standard of work is maintained.

Allied to treatment by occupations is that by physical training. In all male wards classes in drill and ball games, including ward garden cricket, are held daily—in the open, weather permitting. We watched one such class in a ward garden, and heard from both the medical and nursing staff of the great improvement in many patients since these classes began. We were disappointed to learn that similar classes had been instituted on the female side but had not been a success. If suitable gym. costumes and plimsoles were supplied to a group of the younger women, such exercises, especially if varied by musical accompaniment and country dances, might prove more popular.

We found 104 men and 66 women being nursed in bed. These figures represent 15 per cent. of the total patients in residence; this is a somewhat higher than usual percentage of bed-patients, but is explained by the presence here of a large number of senile patients. We discussed all bed cases with their medical officers, and are satisfied that they receive skilled medical and nursing care, and that everything is done for their individual welfare.

This hospital continues to receive a large number of general paralytics who have the benefit of malarial and tryparsamide treatment. A special study is at present being made of epilepsy and of encephalitis.

The only incidence of zymotic disease since the last visit was an outbreak early this year of a mild form of influenza, affecting in all 60 patients. At present 4 patients (1 M., 3 F.) are known to be suffering from active tuberculosis.

The death rate for the year 1936 was 7 per cent. (M. 6 per cent., F. 8 per cent.). Since last November there have been 65 deaths (M. 34, F. 31), followed in 27 per cent. of cases by post-mortem examination. The following were the principal causes of death:—Heart disease (14), organic brain disease (11), bronchitis (8), senile decay (8), and pneumonia (7).

During the period there have been only 3 major casualties—1 fracture, 1 dislocation and 1 fracture-dislocation. All were due to accident falls.

The present nursing staff consists of 22 charges (M. 12, F. 10) and 146 ordinary (M. 76, F. 70) nurses. Sixty-nine men and 20 women are certificated or registered as mental nurses, while an additional 10 of the former, and 8 of the latter have passed the preliminary examination. A sister tutor has been recently appointed; her full time is devoted to the teaching of the staff.

Dr. MacPhail holds a weekly out-patient clinic at the Royal Victoria Infirmary, Newcastle. This clinic draws patients from over a wide area. During 1936 144 new patients attended. Of these, only 52 belonged to the city of Newcastle.

#### NEWPORT (MON.) MENTAL HOSPITAL.

*April 12th, 1937.*

We visited this hospital to-day and we were pleased to find how much is done to make the patients comfortable and contented. Few complaints of any kind were made to us, although a number of out-county patients



from Staffordshire requested transfers back to their own area. We gathered that in one instance at any rate a transfer was being arranged. One private interview was granted.

The number of patients in residence was 407 (205 men and 202 women). Four men and 11 women were on a voluntary footing, the remainder being all under certificates. In examining the figures for 1936 it appeared that, of the 85 direct admissions, 58 were admitted from their own homes and that 19 of these patients came as voluntary patients, the remainder being certified, and 25 were admitted from the Public Assistance Institution all under certificates. There were no direct temporary admissions during the year. These figures seem to show that the advantages of treatment under the Mental Treatment Act are still not fully appreciated in the county borough of Newport. In considering what could be done to improve matters we felt that some co-operation between the medical staffs of the hospital and the Public Assistance Institution might result in patients from the institution being admitted to the mental hospital in suitable instances as voluntary or temporary patients. In some county boroughs a system is in operation by which the medical superintendent or one of his medical officers visits the Public Assistance Institution at least once a week to confer with the medical officer regarding the patients at the institution whose mental condition is being observed. This system, where it is working, has been found to have excellent results.

Upon the figures submitted to us there is overcrowding to the extent of 19 male and 18 female patients both by day and by night. These figures are somewhat serious in view of the small size of the hospital and make the problem of classification, never easy in a small hospital, extremely difficult. The presence of a number of low-grade imbeciles also militates against good classification of the patients. This group requires observation at night and has therefore to be warded in M.1 and M.3 and F.1 and F.3 which are the admission wards in which early cases as well as the sick and infirm are treated. These imbecile cases are by statute primarily the care of the local mental deficiency authority. Their removal would help materially with the problems of overcrowding and classification.

Private patients number 23 males (18 in the service or ex-service class) and 13 females. The charges for these patients are from 28s. to 52s. 6d., the weekly maintenance charge for rate-aided patients being 26s. The average weekly maintenance cost as last ascertained was 26s. 0.6d.

The number of patients on parole is unusually small, only 5 men and 1 woman being given this privilege—all beyond the estate. No wards are administered on the open door principle. Some of the better patients have the privilege of sitting up until 9.30 p.m. This is much enjoyed on the female side, but, we found that the male patients all went to bed at 7.30 p.m. Dr. Mackay has promised to look into the matter.

A great deal is done at this hospital to make the patients comfortable, happy and contented. The wards are in an excellent state of repair and are comfortably furnished and we particularly noticed the good quality of the mattresses in the dormitory. The storeroom space is excellent and the clothing of patients is in consequence very well kept. We were glad to hear that individual underclothing is provided in some of the wards—an amenity much appreciated by the better type of patient. We would like to suggest a steam trouser press in the tailor's shop for pressing the suits of male patients.

There is an excellent canteen which stocks a variety of articles. It is popular amongst the patients.

A part time occupation instructor attends 3 or 4 times a week and has a number of occupation therapy classes, but we have felt that there is room for extension and development of this important treatment. In discussion with Dr. Mackay we have made various suggestions in this connection and we have been glad to find that he is in agreement with us regarding the



importance of starting physical culture and games for certain classes of patient.

The death rate for the year 1936 was 7·4 per cent. During the period under review 28 patients died—death in all cases being due to natural causes; but in 10 cases only was the cause verified by post-mortem examination. No patient has sustained serious injury since the last visit. On examining the casualty books in some of the wards we were satisfied that every care is taken in recording injuries even if they are only slight.

The item in the medical statistics which needs special comment is that indicating the occurrence of 6 cases with symptoms suggestive of dysentery. All 6 cases were male patients and resided in the same ward (M.3). Systematic bacteriological examinations were made by the county pathologist whose laboratory is at Newport, but the results did not enable any definite diagnosis to be made. Moreover the source of infection was not traced. Apparently a certain number of cases with symptoms similar to those observed in the hospital cases were reported amongst the general population in the neighbouring town, and the bacteriological findings in some of these indicated an amoebic type of disease. We discussed with Dr. Mackay and Dr. King various matters, such as the best methods of taking specimens and for the necessity of examining these with as little delay as possible, and we feel sure they appreciated the need for such precautions and of many others for preventing the spread of such an infection amongst the patients.

We welcomed the opportunity of discussing with the doctors the clinical features and treatment of the cases that were being nursed in bed. These were comparatively few and were receiving good medical and nursing care. At the time of our visit many of the bed patients were being nursed on the verandahs. The only improvement we would suggest in the sick wards is the introduction of fixed wash basins with hot and cold water laid on for the use of the doctors and nurses.

The staff of nurses consists of 6 male and 6 female charge nurses, 21 male and 26 female ordinary nurses and 4 of each sex who act as night nurses. Twenty-four men and 10 women are certificated or registered as mental nurses and 2 men and 9 women have passed the preliminary examination.

#### CITY OF NORWICH MENTAL HOSPITAL.

*July 10th 1937.*

We have spent two days on behalf of our Board in visiting this hospital and its new admission unit which has been open for treatment since January of this year. The hospital continues to be well administered and progress has been made in various directions.

It is of interest to record that of the 143 direct admissions during the year 1936 seventy-five per cent. were admitted from Norwich City, the remaining 25 per cent. coming either from Great Yarmouth or King's Lynn. Fifty per cent. of these admissions came through the various public assistance institutions, all under certificate, while the remaining 50 per cent., composed both of voluntary, temporary and certified patients, came direct from their own homes.

Much wider appreciation of the advantages to be gained from Section I of the Mental Treatment Act, 1930, is evidenced by the fact that 32 per cent. of the total direct admissions for 1936 were on a voluntary basis as compared with 20 per cent. for the year 1935. Little use has been made of Section 5 of the Act as the percentages of direct admissions as temporary patients for the years 1935 and 1936 remain small, both being approximately 2 per cent. We suggest that if the general practitioners and relieving officers concerned were again circularised with reference to the advantages of this Section there might be an improvement on these latter figures.



There appear on the statutory books the names of 771 patients (345 men, 426 women), of whom 57 (28 men, 29 women) are voluntary and one (a woman) temporary. The private patients number 42 and 28 of these belong to the service or ex-service class. Seven patients are away on leave and four are boarded out which leaves 760 in residence. We have given all those in residence opportunities of discussing any matter they might wish and two private interviews were given.

Two villas are administered on the open door principle, while two villas and four wards are open to their respective gardens. Thirty-four men and 20 women enjoy parole beyond the hospital estate and 61 men and 70 women within the grounds.

In addition to the completion of the new admission unit since the last visit in October, some structural alterations have already taken place and more are to be carried out at the older building. The laundry ward and the "Cot" are to be reconstructed, the object being, although it will not diminish overcrowding at this hospital, to facilitate the better classification of patients. Until the new boiler house and heating apparatus are erected some of the much needed alterations to some of the sanitary annexes of the hospital, we understand, may be postponed. In some of the wards these have already been enlarged and modernised and those of male wards 1 and 3 and female ward I are to be similarly improved in the near future. There still remains, however, the need of hot and cold water basins in the wards in which patients are nursed in bed and also in some of the upstairs dormitory ablution rooms. In some instances the wards have no sculleries—this too we understand is to be remedied as soon as possible.

The villa and ward gardens present an attractive appearance with their well planted flower beds, especially that of the South Villa which the male patients have made quite delightful. We were disappointed to hear that while the male patients of ward 3 respect the efforts made to brighten their garden with flower beds the same could not be said of those similar patients in the corresponding ward on the female side whose garden was lacking flowers.

The wards and their sick rooms for the most part are well decorated and those which should be in need of redecoration are to be done in rotation; the padded room, though, in female ward I is in need of attention.

The dayrooms and dormitories are clean, properly kept and have a good supply of cut flowers and plants. There is in most wards an adequate supply of newspapers and books, but we feel that books should be displayed in the bookcases in male ward 3. The issue of some Sunday newspapers would be welcomed by those patients who may not be so frequently visited as others.

The patients are suitably dressed and their clothes gave us the impression of being well looked after. The more general use of rails and coat hangers especially in the South Villa, The Hut and female wards 7 and 8, and the provision of a steam press in the future tailor's shop would simplify the maintenance of this good standard.

Overcrowding, in spite of the opening of the admission unit, remains virtually unaltered. There is a deficiency of accommodation by day for one man and 19 women and by night for 6 men and 11 women. One of the consequent handicaps of the overcrowding is the lack of storage room in the wards of the older part of the hospital. We would like to suggest the use of nests of lockers, which would, in addition to providing the patients with easily accessible accommodation for their small private belongings, release some valuable space in the already limited storage room. One dormitory, an epileptic one belonging to male ward 2, seemed to be more overcrowded than the above figures for male night accommodation might suggest.

Occupational treatment is carried out entirely in the wards with the exception of the female side where there is also a room being used temporarily as an occupation centre. Some very good and useful work is done and special attention is being paid to the more regressed type of patient. There is still



scope for the further development of this form of treatment. Physical exercises are at present held in the form of ward classes daily on the female side, and on the male side less frequently. It has been suggested that when the new workshops are built the existing workshops should be converted into a male occupation centre. Accommodation for such a centre is badly needed.

The weekly maintenance charge per head for home patients is 24s. 10d., and that for private patients varies between 31s. 6d. and 42s. The average weekly cost as last ascertained is 24s. 10d.

The clinic at the Norfolk and Norwich Hospital is held on Wednesday afternoons alternately by Dr. Hall and by Dr. Connell, the Medical Superintendent of the County Mental Hospital. The attendances continue to increase in numbers, and Dr. Hall is greatly encouraged by the results obtained. Unfortunately, owing to distance, Great Yarmouth and King's Lynn patients cannot attend and it is doubted whether the establishment of clinics at these centres would be practicable for the same reason. We wish it were otherwise, since examination of the admissions for 1936 shows the negligible use which the Boroughs are making of the facilities afforded by the Mental Treatment Act, 1930, compared with the 40 per cent. of voluntary and temporary patients admitted during the same period from Norwich alone.

The position of social worker is partially filled by Miss Barker, the ascertainment officer of the Mental Deficiency Committee, and the time which she can devote to this work is therefore limited. We have discussed this important appointment with Dr. Hall and during our visit there have been opportunities for practically emphasizing one at least of the many useful activities of such an officer.

The David Rice Memorial Hospital, which is the name given to the admission hospital planned by the late Medical Superintendent, was opened last January. The charming situation of this unit with its vista of undulating country on all sides is fully appreciated by all the patients who were in residence, most of whom were of the voluntary class and expressed their gratitude for the chance of recovery thus afforded them. This unit is self-contained for all services except laundry. It includes excellent staff quarters, a library and canteen, in addition to the most up-to-date accommodation for its patients and is also provided with spacious verandahs. The gardens and hard tennis court in course of preparation, together with the "rough land" beyond the fencing will provide all the amusement and exercise required out of doors. The general furnishing has been carried out with a view to making the patients' surroundings as home-like as possible and we think that this object has been most successfully attained.

Amongst other matters mentioned to and discussed with Dr. Hall during our tour of the hospital were the absence of conspicuous markings for scrubbing brushes used solely for the floors etc. of sanitary annexes and the necessity for labelling disinfectant bottles with directions for use and with first aid instructions in case of accident.

The method of treating foul and infected clothing etc. is proved to be satisfactory by the periodic examination of the effluent from the hydro extractor. We recommend, however, that there should not be any cleansing of fouled articles in the wards and advise that everything should go direct from the patient or bed to the ward bin and thence to the special branch of the laundry. We understand that a steam sterilizer for the infected clothing will be installed at the same time as the new boilers.

We examined the four-weekly dietary and saw dinners served. The former includes a mid-morning lunch for workers and provides for supper. The dinners were ample in quantity, of good quality and nicely served. It is generally concluded that the incidence of intestinal diseases, especially of the dysenteric type, is greatly influenced by a good and varied dietary and a plentiful supply of milk both of which desiderata appear to have had considerable attention at this hospital with good results.



There were comparatively few patients being nursed in bed (11 men and 27 women) and most of these were either new admissions or for mental reasons and therefore only temporarily so confined. The greater proportion were on the verandahs.

The nursing arrangements were quite satisfactory and the patients well looked after in all respects.

The mortality rate for 1936 of 6 per cent. for males and 8 per cent. for females compares not unfavourably with the average for all mental hospitals.

During the nine months since this hospital was last visited on behalf of our Board, 37 patients have died (13 men: 24 women), 43 per cent. being over 60 years of age.

The causes of death, verified in 24 instances by post mortem examination, include three from tuberculosis, 10 from pneumonia and five from heart disease, while seven are recorded as having died from old age. No inquests were necessary.

Five male patients have suffered from dysentery during the period under review. All were mild clinical examples and only two were bacteriologically suggestive of bacillary infection. There are 29 male and 25 female patients retained as dysentery cases. They are distributed throughout the hospital with the exception of the admission unit and female wards 7 and 8. A periodic examination is made and the only restriction imposed is exclusion from contact with food or laundry.

It is interesting to note that there has been no influenza either amongst the patients or staff, and no other epidemic illness is recorded during the period.

The incidence and mortality rates for tuberculosis during 1936 were 14 and 9·8 per 1,000, which is more than double the mean rates for all mental hospitals in general. Dr. Hall attributes these high figures to the large number of patients found to be suffering from the complaint on admission. During our visit there were only three patients of both sexes as tuberculous cases under treatment on verandahs.

Two men and three women have sustained serious injuries (all fractures) in the last nine months. These were due to accidental falls and were successfully treated. In two instances the diagnosis was confirmed or made by X-ray. For such examination there is a visiting radiologist using his own portable apparatus, or the patient is sent to him at the Norwich Hospital. While we appreciate the proximity of the latter hospital and the valuable opinion of the radiologist, we feel that with his aid the installation of an apparatus in the hospital would be of greater service not only in connection with fractures, but also for other conditions and particularly as a confirmatory aid to the diagnosis of suspected pulmonary tuberculosis.

The nursing staff consists of 51 males and 53 females for day duty with 6 and 8 respectively for night duty. Twenty-nine of the males and 22 of the female nurses are certificated or registered as mental nurses; six of the former and 11 of the latter have passed the preliminary examination.

Dr. Hall has the assistance of Dr. Page and Dr. Roberts as his Deputy and Assistant Medical Officer respectively. We have to thank Dr. Hall and Dr. Roberts for their help and assistance during our interesting visit. Dr Page was away on leave.

#### CITY OF NOTTINGHAM MENTAL HOSPITAL.

*March 10th, 1937.*

We are glad to record that Dr. Brunton has made a good recovery after his recent illness and resumed his duties several months ago. He accompanied us throughout our visit to the wards and various departments, and our task was greatly facilitated by being able to discuss with him individual questions as they arose. The visit proved most interesting since at this hospital the



Committee, the medical superintendent, and his officers have introduced so many exceptional improvements and original devices. We need only mention the head-light over each bed in the side wards, wash basins in these wards for the nurses' use, sloping seats to commodes to prevent feeble and elderly patients falling, pedal controls for wash basins and water-closets to avoid unnecessary handling, low reading desks so that readers may be seated and automatically closing receptacles for waste paper and rubbish in the day-rooms.

We began our visit two days ago at St. Ann's admission hospital for women. The formal opening took place last May, but this is the first visit on behalf of the Board since patients have been admitted and treated here. The hospital consists of an admission unit (40 beds), 2 villas named Rendall and Harper each with accommodation for 22 patients, and a nurses' home for 24. The admission unit is well designed and well equipped for the treatment and nursing of patients in accordance with the standards expected at a modern hospital. One of the special features of the treatment centre is the excellent equipment of the hydro therapy and massage department. The convalescent villas and nurses' home have been decorated with good taste and the day-rooms and bedrooms are furnished most comfortably. Each villa has its kitchen where nurses in turn undertake the cooking for the patients, an arrangement which seems to work satisfactorily.

An admission unit, inasmuch as it contains the best facilities for the treatment of surgical cases and of those who require special medical treatment, must obviously be regarded as an integral part of the whole hospital and its amenities should be available to all the patients resident. Whilst recognizing this it will be of much interest to note in the future what proportion of the patients admitted to the modern admission units of our mental hospitals will pass directly into the convalescent wards and then be discharged recovered or much improved to their homes. Dr. Brunton informed us that with the exception of a few chronic patients transferred from other hospitals or institutions all the women admitted since last May have been received into the admission unit. The total number up to date is 87—40 voluntary, 5 temporary and 42 certified patients. It is gratifying to note that only 3 of these, as yet, have been transferred to any of the wards of the main hospital.

There are at present upon the statutory books the names of 1,044 patients, of whom 5 are out upon long leave or trial. Forty females are boarded out at Bagthorpe Public Assistance Institution under the provisions of Section 26 of the Lunacy Act, 1890. Of the patients in residence 61 (27 men and 34 women) are voluntary, and 4 women are temporary patients, whilst the remainder (435 men and 499 women) are certified.

Of a total of 211 direct admissions during 1936, 73 were voluntary, but 3 only were upon a temporary basis. The voluntary admission rate is a matter for congratulation, but the number of temporary admissions is regrettably low. Since the Mental Treatment Act came into force upon January 1st, 1931, no more than 17 patients (5 men and 12 women) have been admitted upon this footing.

During 1936 admission took place in 106 cases by way of a public assistance institution; in 96 cases it took place direct from the patient's home. It is most desirable that a man or woman in need of mental hospital treatment should be removed direct from his or her home to the hospital itself. In the City of Nottingham this question should present no serious difficulty in the majority of cases.

We are glad to understand that a member of the hospital medical staff is now visiting the Bagthorpe Public Assistance Institution upon half a day each week to see any mental patients who have been newly admitted to that institution and to decide with the medical officer the question of their transfer.

We were most favourably impressed by the appearance of the wards generally, and particularly of the day-rooms. No effort has been spared



to make these bright and cheerful in appearance and to banish the institutional atmosphere which is so common in hospitals. This effect is achieved by the generous provision of plants and flowers and of pictures and posters, and in most of the day-rooms cage birds are kept. The furniture is well designed and suited to the needs of the various patients, and there appeared to be an ample supply of reading matter.

The dormitories were clean and well kept. A new type of modern spring horsehair mattress has been introduced in several of the wards, and must contribute considerably to the comfort of the patients. We discussed with Dr. Brunton the question of the supervision of the male non-observation dormitories, where approximately 200 patients sleep. We would suggest that in these, as in other dormitories, a small number of dressing gowns should be supplied for patients' use in the event of the necessity of going to the sanitary annexe. We were told that a number of male patients in these wards could not be induced to wear night-shirts. We hope the nursing staff will make every endeavour to persuade all patients to adopt this more hygienic form of night-wear. We hope also, that it will soon be found possible to provide a supply of hot water to the sanitary annexe to every ward in the main hospital.

The clothing of the female patients was neat and suitable. We consider that that of the male patients might be improved by the occasional use of one of the two steam presses in the laundry.

We were present during the service of dinner in one male ward. The only course consisted of meat pie. We observe from the dietary table that a second course at dinner is served at least three times a week. We hope, therefore, that, as in most mental hospitals, it is the exception rather than the rule for a second course to be omitted at this meal.

Our visit coincided with one of the periodic stock-takings of articles supplied to the various wards and dormitories, and, therefore, the stock-lists were at the central stores. Before we left we had an opportunity of seeing some of these lists. The supply of linen, bedding, underclothing and footwear seemed adequate, and we were assured that no difficulties are experienced in replenishing the stocks in the various wards. Certain apparent deficiencies (e.g., bath towels, handkerchiefs and dressing gowns) were discussed, and these matters, we feel sure, will receive the further consideration of the medical superintendent and the officers chiefly responsible for the ward stocks.

We were much interested in the male occupation centre in the old isolation hospital to which reference has been made in previous Commissioners' entries. The daily attendance is approximately 30; evidence of the work of these patients is to be seen in many parts of the hospital in the form of mats and brushes and articles of furniture. The employment of the more retarded type of patient upon processes such as sand papering is, we are sure, of great therapeutic value.

The patients who normally work in the female occupation centre were visiting the cinematograph theatre at the time of our visit, and consequently, to our regret, we saw none at work.

In one or two of the day-rooms female patients were employed upon rug-making, but the extension of occupational activities to the wards for patients unable to attend the occupation centre appears to be somewhat slow.

A new cricket and football ground are to be constructed upon the steeply sloping land at the rear of the hospital. This will involve levelling upon a considerable scale. Some pieces of ground have already been so treated for the purposes of a tennis court and a bowling green, and the results do credit to those who are responsible for the planning of this work. In the proposed playing fields we see much scope for occupation out of doors for patients of all grades for many years.



Overcrowding exists upon the male side to the extent of 77 patients by day and 41 by night, and on the female side to the extent of 11 patients by day and 19 by night.

The weekly maintenance charge is 23s. 11d. for home and 28s. for private patients. The average cost of such maintenance was last ascertained as being 23s. 10·61d.

The only improvement since the last Commissioner's visit which we need here mention is the erection of two cottages for the staff. We understand that plans have been submitted to the Board for a new kitchen, bakery and laundry.

The death rate for 1936 was 7 per cent., which approximates to the mean rate of all county and county borough mental hospitals. The cause of death was verified by post-mortem examination in 43 of the 61 deaths which have occurred during the period under review. Inquests were held in two cases. In one the injury—a fracture of the leg—which was a contributory factor occurred before the patient was admitted to the hospital. In the other case death was due to acute syncope following an attack of coughing caused by a piece of food partially occluding the upper end of the trachea.

At the time of our visit there were 137 patients, nearly 14 per cent. of the hospital population, being nursed in bed. Comparatively few patients were thus nursed solely on account of their mental condition. We enquired in many instances about the period the patient had been secluded or nursed in a single room. We are satisfied that the medical staff gives such cases careful consideration. Full use is made of the verandahs, and much discrimination is shown in the choice of patients nursed in the open air during the winter months. Naturally patients suffering from tuberculosis are on the verandahs. We hope some simple, convenient and efficient arrangement will soon be made for dealing hygienically with the sputum cups used by these patients.

The observations of the medical staff on the clinical conditions of many of the sick patients were of the greatest interest. It is obvious that the patients receive the benefit of the most modern methods of treatment. From our own observations, and from our perusal of the various day and night reports, and of the notes on individual patients which the nurses make we received the general impression that a good standard of sick nursing is maintained at this hospital.

During the period under review 9 patients (male 4, female 5) sustained fractures, all of which occurred accidentally. With one exception X-ray examinations were made by an arrangement which the Committee has made with the City General Hospital.

For the last three months the strain upon the nursing staff has been considerable owing to an influenza epidemic which has affected 167 patients (male 51, female 116). In addition 21 of the resident and several of the non-resident staff have been indisposed similarly.

This hospital has a most creditable record for the high proportion of certificated nurses. The Miscellaneous Returns for 1936 show that about 86 per cent. of the male and 47 per cent. of the female nurses are certificated. When the Committee have future developments under consideration we hope that they will bear in mind the need of a well-designed lecture and study room suitably equipped with models and charts for demonstration purposes.

#### PLYMOUTH MENTAL HOSPITAL.

*November 9th, 1937.*

We have spent today and part of yesterday in visiting this hospital. The patients, with a few exceptions, were quiet and orderly, and the majority of them seem to be contented.



The day-rooms are kept in good order, and on the female side especially were nicely decorated with flowers and plants. The rooms at Moorfields are particularly attractive and well suited for the early treatment of cases of mental disorder. We think that the provision of bedside mats of a non-slipping type would add to the comfort and appearance of the dormitories in this part of the hospital.

During our tour of the wards we saw a fair number of the type of books that are likely to be popular, and we understand that favoured patients can go to the library to choose their own. We thought that the supply of daily papers and periodicals was rather small.

We noted with satisfaction the tidy appearance of the patients. This we attribute partly to the good selection of clothing provided in the hospital, but still more to the fact that arrangements have been made whereby all patients are allowed to wear their own clothing. Over 50 per cent. avail themselves of this privilege, and there can be no doubt that they much appreciate it. In order to encourage them still further to take an interest in their appearance we should like to see a hairdresser's saloon established in the hospital; we believe the initial expenditure would be well repaid.

During the year 1936, 180 patients were admitted, including 45 voluntary patients, whilst 33 patients were admitted on transfer. One hundred and two departed or were discharged (of whom 78 had recovered), and 65 died.

There are now on the statutory books the names of 311 men and 350 women, a total of 661, including 23 voluntary and 1 temporary patient; there are 67 private patients, of whom 35 are service or ex-service; 38 patients are boarded out under reception contracts.

There are in residence to-day 308 males and 349 females, a total of 657.

The accommodation is exceeded on the male side by 86 by day and 1 by night, and on the female side by 86 by day and 8 by night.

The weekly maintenance charge is 26s. 10d. for home patients and 30s. to 63s. for private patients.

The nursing staff consists as follows :—

							Male.	Female.	Total.
Charge	...	...	...	...	...	...	7	8	15
Ordinary	...	...	...	...	...	...	40	45	85
Night	...	...	...	...	...	...	10	11	21

Twenty-seven men and 18 women are certificated or registered as mental nurses, and 15 men and 17 women have passed the preliminary examination only.

Since the last visit 2 convalescent villas have been completed, the laundry has been extended, and additional machinery installed, including a press and collar machine, and a new disinfecting plant installed.

The most important work in progress at present is the building of a model bakery.

The convalescent villas, built to accommodate 20 patients each, are now being furnished. They are ideally situated commanding a splendid view of the surrounding country.

In the main hospital we noted that telephones have been installed in the wards.

About half the patients in the hospital are reported to be engaged in some form of occupation. Of the remainder many are senile or bedridden, but there are a number of a deteriorated type of male patient who have been idle for years. Now that an occupation centre has been started on the male side we hope it will be found possible to prevent the deterioration of many cases in the future.



Some patients complained to us about the quality and cooking of the food. We visited the kitchen and tasted the food, which was being prepared for today's dinner. We considered it to be well cooked and excellent in quality. We then visited the ward where the complaints were made, and found the meal being served in a satisfactory manner. We do not think that there is any real foundation for the complaints made, though no doubt there are days when the meat may be a little tough.

The dietary is on a 3-weekly scale, and we consider it to be a well-balanced one. The meat and vegetables are supplied by the farm. We are glad to see that pickles are issued.

The canteens, one on the male side, and one on the female side, appear to be very efficiently conducted for the benefit of the patients, who very much appreciate them. We suggested to Dr. Poynder certain alterations whereby intending purchasers might get a better view of the goods exhibited for sale.

Since last visit the general health of the patients has been excellent. With the exception of 3 cases of influenza there have been no epidemic or zymotic diseases. There are 3 typhoid "carriers" on the female side, but the very thorough precautions taken in their nursing for some years have prevented any dissemination of this disease.

At our visit there were 2 men and 5 women under treatment for tuberculosis by open air up-to-date methods whenever possible. We should like to see the spittoons in the wards done away with.

The majority of the patients looked well and healthy, but we were struck by the number of senile cases. The number in bed was roughly 15 per cent., and the great majority were there for physical reasons, and they showed evidence of careful medical and kindly nursing attention.

The mortality rate for the year 1936 was 10·25 per cent. (9·9 males and 10·5 females), which is higher than the average for all mental hospitals in England and Wales (6·8 per cent.). In reviewing the 45 deaths since last visit we note that 27 of these were over the age of 60 (*viz.*, 11 over 60, 9 over 70, and 7 over 80). The principal causes of death were heart disease 16, senile decay 7, tuberculosis 4, and cancer 2.

Since last visit 2 accidents have occurred, both fractures in women and due to accidental falls, one during an epileptic fit. The small number of accidents reflects great credit on the nursing staff for their care and attention to the patients, many of whom are very aged.

We were interested in the somnifaine narcosis treatment being carried out at this hospital, and to hear that 29 per cent. of the cases treated had been discharged and able to resume work, and had no relapse for over a year: 16 per cent. were improved, and in no case had the treatment aggravated the disease under treatment.

In the pathological laboratory much excellent work is carried out; 3,931 examinations were made last year, many of a complicated nature, including no less than 598 Meinicke tests.

The X-ray department has been helpful, and is a necessary adjunct in this well-equipped hospital.

A weekly out-patient clinic is held at the Prince of Wales Hospital by the medical superintendent, and last year he saw 120 new patients with 206 re-attendances; 11 of the cases who attended this clinic were admitted to this hospital as voluntary patients. Patients on leave from Blackadon also attend the clinic, and appreciate being able to do so. We congratulate Dr. Poynder on the good work he is doing, and the success he has made of the clinic, which local medical men must find most helpful with the many doubtful cases they are called on to attend.

Dr. Poynder kindly accompanied us during our tour of the hospital, and we have to thank him and his staff for much assistance, especially with regard to information about the nature of the patients' illnesses which we found so helpful.



## CITY OF PORTSMOUTH MENTAL HOSPITAL.

*February 10th, 1937.*

During our visit here it has become clear to us that, were we to confine our report merely to what we have seen in the mental hospital, we should do far less than justice to the excellent work which is being done by Dr. T. Beaton, the medical superintendent, and the Mental Treatment Department of the City of Portsmouth, in the early diagnosis and treatment of cases of mental disorder.

In Portsmouth there is in full and successful operation a well-organized and comprehensive scheme, operated under the direct personal supervision of Dr. Beaton, covering every aspect of a difficult and complex problem. What is being done in the mental hospital represents one part merely of the Mental Treatment Department's activities: to other activities outside the hospital reference will be made later in this report.

There are at present resident in the hospital a total of 1,180 patients, of whom 498 are males and 682 females. There are no less than 76 male voluntary patients, while in the same class there are 101 females. Five males and 10 females are temporary patients.

During 1936 there were 280 direct admissions (108 males and 172 females), and it is extremely interesting to observe that of this total only 37 males and 33 females were certified patients. Ten males and 27 females were admitted during the same period as temporary patients, and 61 males and 112 females as voluntary patients. Discharges during 1936 numbered 160 (62 males and 98 females), while 111 patients died.

The proportion which the number of voluntary and temporary patients admitted bear to the number of certified patients admitted during the same period speaks volumes for the good work which is being done in the City of Portsmouth in the early treatment of mental disease, and, indeed, the figures are quite exceptional.

The hospital itself is overcrowded, and there is a deficiency of accommodation which tends to become more serious as time goes on. To some extent the position will be ameliorated by the construction of a nurses' home, the plans for which have been passed by our Board, and, indirectly, by the projected colony for mentally defective patients.

We saw, we believe, all the patients in residence, and with all who desired it, we conversed. It is noteworthy that in the course of our visit we received no complaints, and many patients spontaneously expressed their appreciation of the skilled and kindly treatment which they received from the medical and nursing staffs. Patients are orderly and neatly dressed, many of them wearing their own clothes, but in some cases the undergarments supplied by the hospital to the younger female patients are not of a pattern now worn outside institutions. Clothing, too, is stamp-marked, and we hope that the Committee will consider favourably the question of the purchase of a thread-marking machine. Not only does stamp-marking give clothing an "institutional" appearance, but it also in course of time rots the fabric itself, so that it is uneconomical.

We should also like to see coat-hangers provided throughout the male side, and a more generous supply of hangers for the women.

Patients' recreations are particularly well catered for in this hospital. In the summer there are bathing parties for suitable patients, and there are patients' football and cricket teams during the appropriate seasons. There is a large staff band, and in the beautiful recreation hall there are dances and concerts fortnightly, while each week there is a talking-picture show. In the day-rooms plenty of indoor games are provided, and on the male side there is an unusually generous provision of billiards tables. We were particularly struck by the flowers and plants which are in evidence in every ward at a time of the year when it is by no means easy to maintain a supply, and



the gardener deserves much credit for the success which he has obtained in this respect. While the dormitories and day-rooms are very well kept, their general appearance in many cases suffers from the dark and rather dingy colours which have been used for decoration, and when redecoration is done—and in some wards it is due—we hope that use will be made of colours which are lighter and brighter. To paint an old ward in light colours will not make it a new one, but the skilled decorator can work wonders, and many a dark and depressing ward has been converted into a light and cheerful one at a cost not exceeding that of ordinary routine redecoration.

In one or two of the day-rooms of wards where there are a number of epileptic patients we noticed that there were neither couches nor epileptic chairs. We are sure that it would much increase the comfort of these patients if either a couch or one or two chairs were provided.

On the female side we were much pleased with the improvements, referred to by our colleagues in their report last year, which have been made in many of the bathrooms.

The patients' dietary is on a 3-weekly basis, and it is generous and well-varied, while we were particularly glad to learn that green vegetables and fresh fruit are regularly and frequently supplied. Indeed, we are confident that the patients generally are comfortable, and are in receipt of most kindly and skilled care and medical and nursing attention. The mortality rate per cent. for 1936 was 9·3, a rather high figure, due, we were informed, to the rather large proportion of senile patients in the hospital. Since the last visit there have been 63 deaths, the cause being verified by post-mortem examinations in about 20 per cent. of the cases. The majority of deaths were due to cardio-vascular disease 22, pneumonia 20, and malignant disease 9. General paralysis of the insane was the cause of only 1 death; patients suffering from this disease are given malarial treatment here.

Tuberculosis was the cause of 2 deaths since last visit, while there are at present 4 patients under treatment for this illness.

The following figures may be of interest :—

	New cases per 1,000 of population in 1936.	Deaths per 1,000 of population in 1936.
All mental hospitals ... ..	6·3	4·6
Portsmouth Mental Hospital ... ..	5·0	5·0

It is, of course, usually to be expected that the ratio of deaths to cases notified would, on the whole, show a preponderance of the latter. We cannot but feel that the provision of X-ray apparatus would be of great assistance to the medical staff in diagnosing this disease. There has been no epidemic illness of any kind since last visit. We were glad to hear that linen which is partially infected reaches the disinfecting tank with very little handling, and that clear instructions are given as to the methods to be followed.

As at last visit there was a high proportion of patients undergoing treatment in bed, i.e., approximately 20 per cent. of male and 25 per cent. of female patients. These patients were, in our opinion, being carefully and considerably nursed.

Accompanied by Dr. Beaton we have paid a visit of profound interest to the premises of the Mental Treatment Department in Anglesea Road. Here are situated the offices of the department in charge of Miss Brayn, the organizing secretary, and Mr. Bowden, the chief clerk. Here are the complete records of every person who has come within the purview of the department. There is the fullest co-operation between the department, the Education Department, the Public Health Department, the Chief Constable, and the justices, as well as with the Public Assistance Department, and in the result Portsmouth has a mental treatment service which is, if not unique, at least extremely exceptional.



Patients are not normally seen by Dr. Beaton or by Dr. Grimbly, the deputy medical superintendent of the mental hospital, at the offices of the Mental Treatment Department, but they attend an out-patient clinic held at the Royal Hospital weekly. In addition either Dr. Beaton or Dr. Grimbly visit St. Mary's Hospital daily.

The natural consequence of this admirable system of co-operation is that very few persons who would benefit from early treatment of mental disease are overlooked or neglected.

We have greatly enjoyed and been very much interested in our visit, and we wish to thank Dr. Beaton and his medical staff for the information and assistance so readily given to us.

#### SUNDERLAND BOROUGH MENTAL HOSPITAL.

*January 27th, 1937.*

This morning we have completed our visit to this hospital, and believe we have seen all the 558 patients in residence, and found them generally quiet and contented. No complaints were received, and there were no requests for private interviews.

There are on the statutory books 284 males and 293 females, making a total of 577, of whom 65 are voluntary, 2 temporary, and 510 under certificate. During the year 1936, according to the statistics placed before us, there were :—

	Voluntary.		Temporary.		Certified.		Total		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
Direct admissions ... ..	27	22	3	6	24	31	54	59	113
Admitted on transfer ... ..	—	—	—	—	3	1	3	1	4
Departed or discharged (excluding transfers) ... ..	24	18	1	1	14	25	39	44	83
Of whom had recovered	15	12	1	1	11	24	27	37	64
Allowed out on long leave or trial ... ..	—	—	—	1	13	16	13	17	30

From the above figures it is very gratifying to note that over 50 per cent. of the patients were admitted under the Mental Treatment Act, 1930, and that wider use is being made of section 5 of that Act.

The same state of overcrowding referred to in the last 2 reports still continues, and although the parole villa and the 2 convalescent villas are now erected they will not, we understand, according to Dr. Archdale, be ready for occupation at any rate for a period of 14 months. The reason for this is that these buildings have no lighting or heating, and are dependent for that upon the completion of the re-organization of the engineering services involving a new boiler house and a new electrical power plant.

When these engineering services are completed we would like the Committee to consider the practicability of laying on hot water to the wash basins in the sanitary annexes of the wards on both sides, and also to consider the advisability of providing electricity in many of the ward single rooms, which at present have no form of artificial lighting.

The plans for the new admission hospital, the sick hospital, and the extension of the nurses' home have been approved, and we look forward at no distant date to the completion of these much needed buildings.

During our visit we found the wards on the female side well kept and pleasingly furnished, and we were shown some additional pictures which, when placed on the walls should add to their already bright appearance. On the male side the wards were clean and tidy, but for the most part had a drab atmosphere owing to the urgent need of general redecoration. Many of the wards on both sides have no wireless sets, and we hope, if the electricity supply will allow, that many more sets will be installed. The farm villa



also has no wireless, and we would like to recommend the adoption there of small dining tables as seen elsewhere in the hospital, which would add to the comfort of the patients.

In one or two of the male wards, occupied by the more deteriorated type of patient, the sanitary annexes might well be improved and hygiene more easily maintained by the installation of urinals; we discussed this subject with Dr. Archdale.

The female patients' clothing was good and modern, but the appearance of the male patients' clothing could be considerably improved, and that improvement more easily maintained if a steam press were provided either in the laundry or tailor's shop, or in both, and if more general use were made of rods and coat hangers.

Since the last visit a hairdressing saloon for the female patients has been opened which enables many of these patients, at a nominal cost, to have their hair trimmed, shampooed or waved and so, by greatly adding to their general appearance, increasing their self-respect.

A high standard in occupation therapy continues throughout all the wards and in the 2 occupation centres; over 80 per cent. of the patients are occupied or employed in one way or another. Each member of the nursing staff spends 3 hours a week of his or her duty time receiving instruction at arts and crafts classes at Sunderland or tuition in the hospital occupation centres. At present, owing to the small capacity of the existing electricity power plant these occupation huts have no artificial lighting.

The dietary of the patients is good and varied, but the addition of fresh fruit (which at present is only supplied to the admission wards) even once a week should receive consideration. We saw a good dinner served yesterday consisting of bread, meat-stew and boiled marmalade suet pudding; this meal was well served and hot with the exception of the puddings, the dishes in which they arrived having no lids with which to preserve them in transit.

The weekly maintenance charge per head is as follows:—For home patients 26s. 6½d.; for private (49) patients 27s. 5d., 35s., 42s., and the average weekly maintenance cost is 26s. 1·8d.

Country and Morris dancing classes are held in the recreation hall most evenings and once a week a cinema performance. Sometimes a concert is substituted for the cinema and a whist drive is occasionally arranged when prizes are given; this is in addition to the usual entertainments. Classes of physical exercises are held for both sexes daily.

The death rate for the year ending December 1936 was the low one of 5·22. (M. 4·7, F. 5·7).

Since the last visit, there have been 21 deaths followed in 14 cases by post-mortem examination. The principal causes of death were:—senile decay (6), general paralysis (4), tuberculosis (2) and organic brain disease (2).

Two inquests were held—one on a patient who died after an operation whose death was found to be due to natural causes, and the second on a patient who died as a result of accidentally swallowing a bone. Full details of these inquests have already been submitted to our Board.

The general health of the patients has been good and, during the period under review, the hospital has been entirely free from influenza, enteric fever and dysentery. At present there are 7 patients suffering from tuberculosis in active form and, where suitable, these are undergoing open air verandah treatment.

At the time of our visit there were 101 patients in bed. This figure represents 18 per cent. of the total patients in residence but this high percentage is explained by the fact that many of these patients were in bed for a morning or an afternoon rest and would be up and working at other hours of the day.

It is noteworthy that, during the past 10 months, no patient has sustained a fracture, dislocation or other injury of a serious nature. This is a tribute to the nursing staff and their general care of the patients.



The present nursing staff consists of 16 charge nurses (M. 8, F. 8), 90 ordinary nurses (M. 46, F. 44), and 15 night nurses (M. 7, F. 8). Of these, 67 nurses (M. 47, F. 20) are certificated or registered as mental nurses and 24 (M. 12, F. 12) have passed their preliminary examination. The examinations taken by the staff here are those of the General Nursing Council.

Out-patient clinics, by Dr. Archdale and his Deputy, Dr. Back, are held once weekly at the Sunderland Royal Infirmary and twice weekly at the Sunderland Mental Welfare Centre.

That these clinics prove of good public service is shown by the fact that, during 1936, 112 new cases presented themselves for treatment. The total number of patients attending in the year was 225 and the total attendances were 1,083.

We thank Dr. Archdale and his Deputy for escorting us during our visit.

#### SWANSEA MENTAL HOSPITAL.

*April 14th, 1937.*

Our visit to this well-equipped and progressive hospital started yesterday and was completed this morning. It has been a pleasure to us to see many evidences of the progressive spirit in which the hospital is administered. The patients here enjoy most skilled and careful medical and nursing attention and many of them told us how grateful they felt for all that was being done for them.

The names of 600 patients appear in the statutory books. Of these 2 men and 1 woman are at present out on long leave or on trial giving a total of 597 actually in residence—337 men and 260 women. Eighty-five men and 43 women are voluntary patients and 1 man is a temporary patient and 251 men and 217 women are under certificates.

During the year 1936 out of 277 direct admissions 201 were admitted on a voluntary basis, 11 on a temporary footing and only 65 under certificates. These figures are very satisfactory. The majority of the patients were admitted direct from their own homes, but a certain number came on from the public assistance institutions of Swansea and Merthyr Tydfil. In this connexion we would like to suggest that it would be an excellent thing if Dr. Moulson or one of his medical officers could pay periodic visits to these public assistance institutions to confer with their medical officers. This co-ordination of the Mental Health and Public Assistance Services has been found to have excellent results in other parts of the country.

Twenty-nine men (19 in the service or ex-service group) and 4 women rank as private patients. The fees for private patients are from 3 to 4 guineas a week. The maintenance charge for rate-aided patients is 29s. 2d. a week and the weekly maintenance cost as last ascertained was 28s. 11.24d.

The total accommodation of this hospital is for 600 patients, but, owing to the larger number of males, there is a shortage of space on their side for 19 patients both by day and night: this is so in spite of the fact that the female convalescent villa is now used for male patients.

Parole is a feature of this hospital; 17 men and 9 women enjoy town parole and 69 men and 45 women parole within the grounds. In addition to this a large number of day passes are given and a number of patients are allowed out on weekend leave. The figures for 1936 are of interest; 493 day passes were granted to 243 patients and 518 week-end passes were issued to 232 patients. These privileges are much appreciated by the patients.

All the wards are open to the ward gardens and one ward on each side as well as the 2 male villas are open to the grounds.

In our tour of the hospital we believe we have seen all the patients in residence and we have had long conversations with many of them. They were on the whole remarkably contented and happy and as we have already indicated much is done to make them so. The wards are well furnished with



books (there is also a good central library) and daily papers and some of the cheaper weeklies. There is a good supply of indoor games throughout the hospital. Wireless is in each ward. The dayrooms are furnished in a comfortable and homelike manner. A larger supply of illustrated weekly papers would be of advantage to those patients whose mental condition prevents their concentrating sufficiently to read.

In examining ward equipment we were glad to see that one or two wards had now been supplied with rods and coat hangers for the storage of outdoor clothing. In one case these were not being used, but their utility is obvious and we hope that all cloak rooms will shortly be fitted with them. In the ward kitchens the electric plate warmers have been found to be unduly expensive and some have been replaced by small coal ranges. The sinks in these kitchens have worn very badly and are somewhat small in size ; when being replaced a larger size would be more useful. Aluminium mugs are in use for drinking purposes in all wards ; we have suggested to Dr. Moulson the possibility of experimenting with tumblers of unbreakable glass.

In the laundry a glad-iron has just been installed beside the steam trouser press and is of great assistance in pressing the women's dresses. A new steam autoclave has supplanted the formalin chamber for the disinfection of linen and bedding.

We have discussed with Dr. Moulson the need for improving the dress of women patients which is unduly institutional in appearance and we were glad to find him in sympathy with our suggestions. We hope also that it will be found possible to introduce individual underclothing.

We visited this morning the occupation centres at the admission hospital and at the main building and we have been most favourably impressed by what we have seen. Valuable work is being done in the re-education of patients. We suggested the need of the introduction of a greater variety in the crafts taught.

The nursing staff consists of 3 male and 10 female nurses of charge rank and 35 male and 53 female ordinary nurses. Twelve men and 17 women act as night nurses. Twelve women are employed as nurses on the male side. Twenty-six men and 22 women are certificated or registered as mental nurses and 11 men and 18 women have passed the preliminary examination.

The death rate for the year ending December 31st, 1936, was 10·2 per cent., which appears to be high when compared with the mean rate of 6·8 per cent. for all County and County Borough Mental Hospitals in England and Wales. But this figure has to be interpreted in the light of the admission rate, which is exceptionally high. In the course of the last year there were no fewer than 277 admissions—that is, 46 per cent. of the average number of patients in residence. In passing we may note that a rapid flow of patients through an admission unit is one important criterion of its efficiency, especially when a large proportion of the patients return to the general community without going into the main building, as we are assured is the case at this hospital. Such a high rate of admissions is doubtless due partly to the fact that many of the patients on admission are acutely ill physically as well as mentally. The recognition of the close relation between physical and mental illness is a step in the right direction, and is certain to effect good results in the medical treatment of large numbers of patients.

We were much interested in discussing with the Medical Superintendent and his colleagues the treatment of many patients.

The doctors' approach to their patients is greatly facilitated by the full informative and most helpful notes in the Social Worker's reports. Much valuable work is done in securing accurate accounts of the patients' scholastic attainments and industrial efficiency and of various environmental factors that may have contributed to their mental illness. This information is all the more essential and helpful in view of the importance attached to psychotherapy at this hospital. Dr. Copeland and Dr. Kitching have ready for publication the results obtained in the treatment of twenty patients by hypnosis. One



striking conclusion of this work is the frequency with which provisional diagnosis had to be modified in the light of the changes effected by hypnosis in the mental condition.

The medical approach, however, is many sided as indicated by other original contributions made recently by the medical officers. Dr. Copeland has published a short article on "Frontal Lobe Cerebral Tumours" and Dr. Kitching another on "Observations in the Excretion of Sodium Barbitone." Good work is done at the Pathological Laboratory; this room appears to us to be somewhat small for its many activities. In one respect only would we like to see more done, and that is in the number of postmortem examinations. In only 17 of the 45 cases of death during the period under review was the cause verified subsequently by such examination.

In the statistical data relating to zymotic diseases we note that in January there were two cases, both male patients, of dysentery, one of the Flexner and the other of the Sonne type. In both cases clinical signs and symptoms disappeared after a few weeks' treatment. In addition during the last seven months there have been 10 cases of diarrhoea—5 males and 5 females distributed in 4 wards—but repeated bacteriological examinations yielded no positive findings in any of these cases. These examinations were made without delay at the hospital's laboratory and the transitory character of the illness in all these cases supports the view that it was not due to any infection of a serious nature. The medical and nursing staffs realise the need for special care in watching for abnormal conditions suggestive of dysentery amongst the patients in the wards where the dysentery cases have occurred.

Nine patients—5 men and 4 women—have sustained fractures in the course of the last seven months. Five of these fractures were of a minor nature and in two cases only were long bones fractured. It is gratifying to have such full details of the circumstances in each case. Excellent use is made of the X-ray apparatus for the examination of all cases in which it is thought possible that patients have sustained bone injury.

Dr. Copeland, who was the Deputy Medical Superintendent here, has recently resigned to take up another appointment and Dr. Edward Kitching, one of the assistant medical officers, has during the past few days been appointed to succeed him.

Our thanks are due to Dr. Moulson and his medical officers for their most helpful attitude during our visit.

#### WEST HAM MENTAL HOSPITAL.

*September 29th 1937.*

We have spent the last two days in visiting this well-equipped and progressive hospital, and we have seen many proofs of the excellent medical and nursing treatment and kindly care enjoyed by the patients.

The points raised by our colleagues who visited in July 1936 have all received attention. We have been interested to see the new trolley food containers which now convey meals from the central kitchen to the wards in the main building. These must do much to keep the food hot on the journey. Plans are now under consideration for the installation of lavatory basins with hot and cold water in the dormitories of the infirmary wards and also for the extension of the sanitary annexes in these wards to provide suitable sluice rooms. We hope that in these space will be provided for the proper storage of the bed pans. The question of the acoustics of the recreation hall has also been dealt with. It has been found that the adoption of "Frontal projection" of the sound films has much improved their audibility. Efforts have also been made to increase the number of books in the library. There is now a central room used as a library from which books are issued weekly to the wards. Suitable patients are allowed to visit the library, which is furnished with tables and chairs so that books can be consulted on the spot. The number of newspapers and periodicals in the wards themselves is most satisfactory.



Generally speaking the condition of the wards is extremely good; some redecoration is needed and is shortly to be carried out. The day rooms and dormitories are most comfortably furnished with a view to making the former as homely as possible. A notable feature at this hospital is the attention devoted to the provision of cut flowers in all the dayrooms and sick dormitories. These are in addition to the pot plants which are everywhere in evidence. The ward gardens, which are skilfully and most artistically laid out, receive a great deal of care from the nursing staff assisted by the patients, and their condition reflects great credit upon all concerned.

We have seen all the patients in residence—1,223 in number (597 men and 626 women) and we have found them most orderly and well-behaved. Many of them had conversations with us, but no private interview was requested. A number of patients spoke with appreciation of the kindness shown to them by the medical and nursing staff.

During our tour of the hospital we have had opportunities of observing the patients' clothing. On the whole we think that the male patients were remarkably neat in their appearance and that their suits were tidy and well kept. The introduction of modern ties and the replacement of metal buttons on the shirts by buttons of a different kind are two suggestions we should like to put forward. The women's dress is somewhat old fashioned and rather too institutional in appearance. There is a good deal which might be done to bring it more into line with the clothing worn in the outside world. We would suggest that the dresses, particularly of the younger patients, should be somewhat less stiffly constructed and that the patients should be allowed to choose their own styles and materials and be measured individually for their dresses. Aprons and overalls of a modern type and made in pretty materials would also be an improvement. So far woven underwear has not been introduced for the women. It might be possible to try woven garments in the admission hospital and villas as a start. We feel sure they would be much appreciated by patients.

We have suggested to Dr. Cuthbert in the course of our visit the possibility of starting a hairdressing saloon on the female side. In the hospitals where these saloons have been installed they have been found most successful and the improvement effected in the appearance of patients has been marked.

Occupation therapy continues to play a most useful role in the re-education of patients. Unfortunately owing to the absence on holiday of the Occupation Officer we have been unable to see as much of what is going on here as we would have liked, but we have been glad to find how clearly the usefulness of the treatment is recognised. This morning we were able to witness displays of drill both on the male and the female sides of the hospital. We saw a very excellent display by a small group of ten male patients and we were glad to hear that there were several other classes of a similar size. The movement is of more recent origin on the female side and the group we saw numbering thirty-five was somewhat too large to obtain the best effect. We have suggested to Dr. Cuthbert that it would be well worth while for him to visit two or three other hospitals where drill and other exercises are well established as a form of treatment.

The question of the patients' dietary has been carefully considered by us and we have been glad to find that in addition to the ordinary and mince diets there are two other diets known as A and B for invalids and for patients who find it difficult to eat the usual food. We were also pleased to find that facilities are given to the patients to cook extra food, provided by friends or purchased by the patients themselves, in the ward kitchens. We would, however, like to suggest that the present weekly diet should be replaced by the more usual three weekly or monthly diet. It would then be possible for patients on the ordinary diet to enjoy a different dinner on each day of the three-weekly or monthly period. We were much pleased by the neatness of the way the tables were laid and the dinners served. We suggested to Dr. Cuthbert the possibility of making the tea in teapots in some of the smaller



units—such as the admission hospital—where the better types of patient are housed.

There are at the present time 88 voluntary and 8 temporary patients in residence. During the year 1936 of 169 direct admissions 101 were admitted on a voluntary basis and 33 were admitted on a temporary basis. The figures for 1937 up to date are even more striking. It is obvious that the provisions of the Mental Treatment Act, 1930, are being properly utilized in the Borough of West Ham. Fifty men (46 in the service or ex-service group) and 5 women rank as private patients. The charge for these ranges from 29s. 2d. to five guineas per week. The charge for rate-aided patients as well as the average weekly maintenance cost being the former figure.

There is no overcrowding on either side of the hospital.

Parole is granted to 26 men beyond the estate and to 27 men within the grounds. Although formal parole is not granted to women patients, a number of villas on the female side are open to the grounds and female patients are taken for walks in the charge of nurses both within and without the estate.

The present staff of nurses consists of 30 male and 14 female nurses of charge rank, 75 male and 92 female ordinary nurses and 17 men and 19 women are on duty by night. One hundred and four men and 50 women are certificated or registered as mental nurses and 9 men and 40 women have passed the preliminary examination.

A thorough overhaul by clinical, bacteriological and bio-chemical examinations is made on the admission of new patients. No means of treatment which present a prospect of restoring patients to health is omitted from the therapeutic activities of the hospital. As soon as the hypoglycæmic shock method of attacking certain forms of mental disease was brought to the notice of hospitals in this country, steps were taken to introduce it here and up to the present some 40 men and women have been treated with striking results in several cases. We saw yesterday 9 women receiving this treatment under very carefully organised conditions, in which the best resources of the hospital are available. In the same ward we saw three patients under treatment by cardiazol. Reverting to treatment by occupations we feel there is a need for the introduction of hand work suitable for men, as we learned that in some wards more than half the patients who are up and about are unoccupied. Inoculation by malaria for general paralysis is regularly carried out in appropriate cases, and treatment by means of various physio-therapeutic agencies, such as sprays and ultra-violet radiation are also available. The X-ray apparatus has proved of particular value in the diagnosis of pulmonary tuberculosis, which on the men's side, has been found in 13 fresh cases and on the women's side in 2, but the number of active cases among the men is considered to be not more than 5.

Yesterday and to-day there were 23 men and 84 women under treatment in bed, the difference in these figures being largely represented by a number of elderly women. We felt that these and other patients were all receiving very careful attention and the benefits of the advances of modern medicine.

One method of assisting in the necessary exploration of the factors in a patient's breakdown, which we would recommend to the consideration of the Committee of Visitors, is the appointment of a social worker who might also keep patients in touch with their relatives when the latter fail or are unable to visit.

We are interested to learn that in addition to the holding of a twice weekly clinic for out-patients in Stratford a member of the medical staff of this hospital visits the observation wards at Whipps Cross hospital every week in an advisory capacity, suggesting also the status under which admissions here should be made.

Nine men and 22 women have been attacked by influenza, which affected also 21 members of the staff.



A fatal case of dysentery occurred in Ward F.6 in March and another in Ward F.1 in July, neither giving rise to other cases. Apart from the above diseases and the fresh cases of tuberculosis there has been no outbreak of infection since the last visit.

We are glad to learn that as soon as any intestinal illness appears all foul garments are treated as though infected.

Seven patients of each sex have met with accidents involving fractures of bones; in 8 cases the leg and in 5 cases the arm were the seat of injury, and in one other case the foot. Two patients sustained their injuries at the hands of fellow patients, the remainder by falls. The ages of these patients ranged from 33 to 75.

The death rate of the hospital, 43 per thousand continues to be low in comparison with the average for all mental hospitals. The number of deaths since the last visit has been 85 (35 men and 50 women); these have been followed by post-mortem examination in nearly 59 per cent. of cases.

The cause of death was heart disease in 40 cases, pneumonia in 14 and tuberculosis in 5. Four deaths have been the subject of inquests all of which have been fully reported to our Board. One epileptic woman was asphyxiated in a fit by her bedclothes and an epileptic man by his pillow. This article in the wards for such patients is of a different type from the ordinary pillows, but it did not however prevent this accident. One woman died of a pulmonary embolism following an operation and another suspended herself from a pipe in the admission hospital.

#### CITY OF YORK MENTAL HOSPITAL.

*March 11th, 1937.*

Visiting this hospital yesterday and to-day, we have been much impressed by the general spirit of contentment among the patients and by the easy, cordial relations existing between them and the medical and nursing staff.

The wards and dormitories are very well kept, bright and tastefully decorated. A generous supply of daily newspapers and weekly periodicals is allotted to each ward—in addition to an adequate supply of books which are changed at intervals. The central library has an unusually large and varied stock (over 2,000), and those patients who so desire, are allowed to come here once a week and choose their own books. Some gramophones have recently been procured and are much appreciated in the wards.

Female patients are encouraged to wear their own clothes and many take advantage of this privilege but those who do not are neatly dressed in hospital frocks cut on modern and attractive lines. Vests worn by the men, however, are still of the old-fashioned flannel type.

There is an occupation room on each side—where some 20 to 30 patients are employed in the mornings or afternoons. The male room has recently been enlarged by means of a spacious verandah extension. While appreciating the benefit to patients derived from attendance at these centres, we feel such benefits could be enjoyed by many more if the introduction of simple handicrafts were extended to the individual wards—especially on the female side where we saw a good proportion of the patients sitting about idle. There is a wide range of useful handicrafts available for the men.

Physical training classes are held in the female wards daily and, once a week, a combined female class is held in the recreation hall. Folk dancing has recently been started by this class. It is hoped that similar classes will shortly be begun for the men.

The dietary is good and varied and includes supper for the working patients. The addition of a periodic ration of fresh fruit, especially in the winter months, would be an advantage. Meals are served in the wards and, at present, the only method of heating dinner plates is by running hot water over them. Some simple form of plate-warmer might be erected in the ward kitchens.



There are at present on the statutory books the names of 394 patients (M. 179, F. 215). All were in residence at the time of our visit. They included 10 voluntary (M. 3, F. 7) and 4 temporary patients (M. 2, F. 2), the remainder being under certificate.

During 1936 there were 71 direct admissions, of whom 16 came as voluntary patients—compared with 7 in the previous year—and 7 were on a temporary basis—compared with 3 in the previous year. These figures show a slow but steady appreciation, in this area, of the benefits of the Mental Treatment Act, 1930.

Of the 71 direct admissions during 1936, only 21 came from their own homes—the remaining 50 having come from a public assistance institution.

From the figures returned to us, there is a deficiency of space by day for 24 men and 5 women and by night for 14 men. There is spare night accommodation for 13 women.

The weekly maintenance charge per head for home patients is 22s. 2d., while that for private patients is from 27s. 6d. to 42s.

Two wards on each side are open to the grounds. Six men and 5 women enjoy full parole beyond the grounds while limited parole, within the estate, is granted to 15 men and 10 women.

The death rate for 1936 was as low as 34 per 1,000 for men; for women it was 56 and, for both sexes together, 46.

Cardio-vascular disease was the cause of 8 of the 17 deaths that have occurred since the last visit, a year ago. Three were due to pneumonia and 1 to tuberculosis. Only four of these 17 patients were men. Post-mortem examinations were conducted in 11 cases. No death during this period necessitated an inquest and only 2 major casualties have occurred, in both instances to women who slipped or tripped and fractured bones of the arm.

Seventy patients and 27 members of the staff were affected during the recent wide-spread incidence of influenza. Two women have suffered from erysipelas—1 of whom died. At present, 2 men and 4 women are under treatment for tuberculosis, under conditions as nearly of the open-air type as are at the moment practicable for these patients.

Yesterday the proportion of patients nursed in bed was about 14 per cent. on the women's side and a little over 7 per cent. on the men's. These and any who were ailing seemed, to us, to be under very favourable conditions of treatment and care. We think it would facilitate the nursing of debilitated patients, who require a waterproof, if the latter were sufficiently broad to allow of effective tucking of the edges under the mattress and so prevent its getting into folds.

At the farm, the herd of cows in milk is now 20 and there is a generous supply to the hospital. The milking is conducted on sound, hygienic lines and the utensils, which are of a good pattern, are sterilized in the steam oven.

The present staff of ward nurses is 30 on the men's side and 33 for the women. Five and 7, respectively, are charge nurses and 4 and 5 are on night duty. Over 61 per cent. of the men, and over 35 per cent. of the women nurses are certificated.

We had the good fortune to meet the Committee of Visitors yesterday afternoon.

Dr. Hooper continues to have the assistance of Dr. Morrison Smith and consultants in Medicine, Surgery and Pathology are at any time available from York.



## APPENDIX B.

### ENTRIES BY COMMISSIONERS AT REGISTERED HOSPITALS, ETC.

#### BARNWOOD HOUSE, GLOUCESTER.

*November 16th, 1937.*

On July 1st, 1937, Dr. G. W. T. H. Fleming took up duties as medical superintendent of this hospital, having previously held the post of medical superintendent at Hereford County and City Mental Hospital for more than five years. In his new post at this hospital, with its long traditions, there are fresh problems to engage his earnest attention, and on behalf of my Board, as well as on my own, I offer him best wishes for a long and successful term of office.

Already the question of accommodation in keeping with modern requirements is receiving the consideration of Dr. Fleming and his Committee, and at this moment two alternative schemes present themselves, viz., the adaptation of a portion of the existing premises on each side or providing a separate admission unit removed from the immediate vicinity of the main building.

Some reorganization of accommodation has already been taken in hand, and a villa capable of providing private suites for 5 gentlemen has been acquired for that purpose. Redecoration is now in progress there, and patients will be in residence by January.

The Lodge, at present occupied by the deputy medical superintendent, is to be adapted for the use of three ladies requiring private apartments, and Avenue Cottage, hitherto let by the hospital to a private tenant, has now become available as a residence for the deputy superintendent.

These arrangements will release some single rooms for which there is always a demand in a hospital of this character, but beds in the admission ward will tend still to be occupied by patients requiring treatment for purely physical ailments.

In one of the wards on the ladies' side hand-basins with running hot and cold water are shortly to be installed, and I would suggest that consideration should be given to the question of supplying hot water to the hand-basins in the lavatories on the ground floors on both sides of the hospital.

A change has been introduced in nursing arrangements whereby the deputy matron, fully qualified and recently appointed, will be responsible for the management of the male side. The introduction of female nurses into the wards housing the less active patients is also being contemplated.

A dancing instructress has been engaged to teach ball-room dancing to both sexes and to the nursing staff once a week. A dance band also provides the music for the fortnightly dances, gramophone records hitherto having served this purpose.

Also worthy of mention, I think, is the engagement of an artizan staff capable of carrying out all ordinary repairs and decorations.

I found the various sitting-rooms and dormitories comfortable and warm. All patients being nursed in bed appeared to be in receipt of skilled and kindly attention.

The consulting staff of the hospital has been augmented considerably since the last visit.

I am glad to learn that the issue of library books is to be organized so that there will be frequent changes, and the number of books available for circulation throughout the wards considerably augmented.

There are now on the books the names of 61 gentlemen and 87 ladies—a total of 148 patients. Of these 22 are on a voluntary basis, one is a temporary patient and the remainder, 125, are detained under certificate. Included



in these numbers are 2 voluntary patients and 2 certified now out on trial. Thus there are actually in residence 59 gentlemen and 85 ladies.

Direct admissions since January 1st, 1937, numbered 28—14 gentlemen and 14 ladies, and 2 men were admitted on transfer. In the same period 19 patients were discharged or departed, 5 were transferred to other statutory care, and 11 died.

Since the last visit 2 men and 2 women have died. The death of one of these patients, a gentleman, was the subject of an inquest, and all the facts relating thereto were communicated to the Board.

Parole is granted to 7 patients beyond the grounds, to 8 ladies within the grounds, and 10 gentlemen and 10 ladies attended by nurses, enjoy walks beyond the confines of the estate. Fifty-two patients are also taken for carriage drives, on an average once a week.

I was accompanied throughout my visit by Dr. Fleming and by Dr. Liddell, the deputy medical superintendent.

#### BETHEL HOSPITAL, NORWICH.

*December 1st, 1937.*

There were in residence today 70 ladies and 28 gentlemen. Of the former 27 were on a voluntary basis, and the remainder certified; of the latter 12 were voluntary and 16 under certificate. One lady was out on trial. Since the last visit admissions have totalled 23, and of these 17 were admitted on a voluntary status, and 6 under certificate.

During the period under review 16 patients have been discharged or have left, and 8 have died.

The nursing staff consists of the matron, a home sister, a sister tutor, and 17 nurses on the female side and 8 male nurses for duty on the male side.

For the purpose of developing further the activities of the occupational therapy classes the matron and sister tutor have been attending special handicraft classes, and it was gratifying to note to-day the enthusiasm exhibited for this form of treatment. I found the day-rooms and sleeping accommodation warm and well kept. Redecoration on the male side has brightened the appearance of some of the accommodation. On the ladies' side a special guard of stout wire-meshing on standards has been erected on the flat roof by which egress would be effected in case of emergency.

It is particularly gratifying to record that the Committee of Management have purchased a site of 40 acres on which will be erected a hospital modern in design, and providing facilities for treatment in accordance with modern conceptions.

#### BETHLEM ROYAL HOSPITAL, BECKENHAM.

*December 3rd, 1937.*

We found to-day 221 patients in residence at this hospital, and 1 away on leave. They are classified as follows:—

							Female.	Male.	Total
Voluntary	...	...	...	...	...	...	91	71	162
Temporary	...	...	...	...	...	...	—	—	—
Certified	...	...	...	...	...	...	34	25	59

The hospital throughout was in its usual good order, and although we were sorry to hear from Dr. Porter Phillips and from Miss Hearder of the great and increasing difficulty in obtaining nurses we had evidence on our visit of excellent nursing and sympathetic care on the part of the senior members of the nursing staff.

We were much interested to hear of the results already obtained by the hypoglycaemic treatment, chiefly under Dr. Hamilton's direction, and



to see during our visit some patients actually undergoing this form of treatment. So far 11 women and 2 men have been treated. Five women have made a good recovery, 1 has not responded well, whilst another patient refused to continue the treatment. The remaining 4 women and 2 men are still being treated. The arrangements of the ward in which these patients are dealt with appear to be admirable, and we were satisfied that the patients are receiving expert medical and nursing attention.

Since the last visit a fire station has been erected, and the fire equipment reorganized; garages have also been provided for the medical staff. Better lighting has been provided in some of the rooms, but we still saw some bedrooms and dormitories where the lights, high up in the ceiling, shine into the patients' eyes. If some safe means of providing lights behind the patients' beds could be devised we feel sure it would be appreciated.

It is satisfactory to learn that Miss Pollard is to be provided with two assistants who will introduce more occupations in the wards amongst patients who are unable to attend the centre. This is much needed, and equally important in our view is the need for the introduction of daily physical exercises in the wards or in the hall, for patients of all grades. Mrs. McClean still visits for two days in the week, and takes classes for the better ladies, but we feel that there is scope also for the treatment of patients who are too disturbed or too apathetic to join the classes. This treatment, by exercises adapted to the patients' needs and made attractive by the accompaniment of music and by suitable clothing, should be carried on as part of the daily routine, and in our opinion requires a full-time officer in a hospital of this size and importance.

Since February there have been 20 deaths, the chief causes being cardiovascular conditions and broncho-pneumonia. There have been no inquests.

Dr. Porter Phillips accompanied us on our visit and we are grateful to him for providing us with all the information we required.

#### BOOTHAM PARK, YORK.

*October 27th, 1937.*

After holding the appointment for close on 25 years Dr. G. R. Jeffrey retired from the medical superintendency of this hospital on September 1st. The hospital and the district have thus lost the services of an eminent psychiatrist and a gentleman who was personally and deeply interested in the patients under his care. I am sure the good wishes of those who were fortunate enough to know Dr. Jeffrey will accompany him throughout his retirement.

The vacancy thus caused has been filled by the appointment of Dr. D. Robertson, whose personal qualities and considerable medical experience afford high promise for the welfare of the patients and the future development of the hospital.

There are to-day 49 ladies and 45 gentlemen in residence, all of whom have had an opportunity of discussing their reception or kindred matters. One lady is very appropriately a temporary patient. Of the 9 gentlemen and 11 ladies who were admitted on a voluntary footing, 1 of the latter expressed a wish to leave, and is not suitable to remain as a voluntary patient. Steps have already been taken to alter her status. The other recent admissions seem to me to be quite proper.

Eleven ladies and 5 gentlemen are at the moment confined to bed, mainly for physical reasons, 3 of the gentlemen occupying beds out of doors on a verandah.

From my enquiries regarding the patients, and from their appearance, I am sure much is being done to promote recovery and to maintain a high standard in the care of the patients, and it is of particular interest to learn



that Dr. Robertson, who has visited hospitals in Vienna and Buda Pesth to observe treatment by hypoglycaemic shock, is about to make use of that method here.

Occupational handicrafts continue to play a definite part in the treatment, and members of the nursing staff, in the course of their training, spend about 3 months in the gentlemen's handicraft room. The small room, formerly serving a similar purpose on the ladies' side, is now reserved for storing the materials, and the patients are carrying on their several handicrafts in their own wards until a more suitable room is secured. I would recommend the provision of a gym. costume for the physical training on both sides of the hospital, and of a musical accompaniment to this valuable adjunct to treatment.

Parole is now enjoyed by 11 patients within the grounds, and by 4 beyond the estate; 31 patients are taken out for drives on an average once a week in favourable weather. Arrangements are made also for many patients to be accompanied individually to the theatre and to other places of entertainment.

The wards are comfortable and well kept. Recent additions to the furniture include wardrobe accommodation with coat hangers and space for hats and for boots, as well as comfortable chairs in ward 6 on the gentlemen's side.

Particular care is exercised in the medical supervision of the service of meals both by trays and to the tables and in the choice of diet for the sick.

So far this year the direct admissions have been 27 voluntary, 2 temporary, and 5 certified, or 85 per cent. under Sections 1 and 5 of the Mental Treatment Act, 1930, out of a total of 34.

Since the last visit, in January of this year, 2 ladies and 4 gentlemen have died; 3 of these 6 patients were 77 years of age, and the others were 61, 68 and 70, respectively. The cause of death in 4 cases was some form of cardio-vascular disease; in the 2 others, broncho-pneumonia and cancer. There have been no serious injuries or occasions for the use of seclusion.

Comparing the figures for the nursing staff with those given in January I find there is an additional night nurse on each side.

Dr. Robertson is assisted by Dr. I. R. Macphail and Dr. Joyce E. Marshall.

#### THE COPPICE, NOTTINGHAM.

*July 23rd, 1937.*

Visiting The Coppice to-day we were sorry to learn of Dr. Hunter's indisposition. We hope that soon he will be recovered and able to resume his work here. In his absence we were taken round the hospital by Dr. Woddis and Dr. Weinstock, who is acting as locum.

On the statutory books are the names of 38 gentlemen and 43 ladies. Of the gentlemen 8 are voluntary and 2 are temporary patients, while, of the ladies 8 are voluntary and 3 are temporary patients. With the exception of 4 ladies who are at present on holiday at Morton Hall, 1 lady who was out for the day and 1 gentleman now out on trial, all the patients were in residence, and were seen by us.

Since March of this year there have been 15 admissions (males 10, females 5). Of these 8 came on a voluntary and 3 on a temporary basis, the remaining 4 being under certificate. During the same period 21 patients have left (males 8, females 13). Of those who have left 12 were voluntary and 9 were certified patients. One gentleman has died from natural causes.

A great deal of re-decoration throughout the house has been done recently, and the rooms everywhere were well-furnished, comfortably warm and well ventilated. The day being very wet and unpleasant, the warmth of the rooms was such as was bound to be appreciated by the more elderly patients.



MORTON HALL, LOWESTOFT.

*September 22nd, 1937.*

There were 6 gentlemen in residence to-day, and all appeared to be enjoying good physical health. Motor drives twice a week, visits to the cinema, and walks constitute the main recreations for patients who come here on holiday.

The staff consists of 2 male nurses and the cook. No one has yet been appointed to fill the place of the resident gardener, although a part-time man has just recently been engaged.

The premises generally are in good order, but the wall-paper in certain parts is coming away from the wall, and should receive attention. The bagatelle table should also be re-covered and kept in good order.

COTON HILL HOSPITAL, STAFFORD.

*October 15th, 1937.*

I have to-day paid the second visit of the year to this registered hospital. Since the last visit 27 patients have been admitted, 14 of them being voluntary patients, 12 certified and 1 temporary. Ten patients have left and 2 have died.

There are to-day on the books the names of 114 patients, 39 males and 75 females. Thirteen of them are here on a voluntary basis, 1 is a temporary patient, and the remainder are certified. One to-day is away on leave.

I believe I have seen all the patients who are in residence to-day.

I have given private interviews to 1 lady and 2 gentlemen.

On the male side there are very few patients who are capable of much in the way of occupation. Many of them are suffering from advanced dementia, and 10 were confined to bed to-day either on account of senility or for mental excitement. I saw, however, 6 gentlemen engaged in carpentry; they were doing some useful work, and were keenly interested.

On the female side about half the patients are capable of some form of occupation, and spend a good part of the day doing various forms of handicrafts under the supervision of the lady occupation officer.

The talking pictures have proved a great attraction, and are much appreciated. Visits are also made by some patients to the local cinema.

The general health has been quite satisfactory.

HOLLOWAY SANATORIUM, VIRGINIA WATER.

*December 30th, 1937.*

Since January 1st, 1937, the direct admissions to this hospital have numbered 90, of whom 42 were men and 48 women.

As high a proportion as 76·6 per cent. (30 men, 37 women) were admitted as voluntary patients.

It is gratifying to find that so many of the patients who come for treatment do so of their own free will. Two men and 3 women were also admitted under the Mental Treatment Act, 1930, but as temporary patients.

The other direct admissions were 10 men and 8 women.

Patients admitted to transfer include 1 temporary patient, and there were also received 5 males and 6 females who were certified.

Of the voluntary patients 14 men and 22 women, a total of 36, were discharged during the same period as recovered. The total number of patients discharged as recovered was 44 (18 men and 26 women), and 15 patients (7 men and 8 women) were transferred to other care.

The number of deaths was 18 (7 men and 11 women).

On the day of my visit there were in residence here 132 men and 171 women, a total of 303. One man and 3 women were on leave or trial. To



the branch of St. Ann's, Canford Cliffs, patients who require a change are sent for periods of leave.

I am informed that 10 men and 21 women (total 31) are at present living there. Thus the total number of patients on the statutory books is 338—143 males and 195 females.

Progress is being made in the use of occupation as a supplementary mode of therapy. I found at my visit on a day when normally most attention is paid to the incidents of the festive season, that many patients were using their leisure moments in some kind of interesting occupation.

The decorations in the wards were splendid, and I understand that a number of entertainments and parties are taking place over the New Year period.

The addition of a dormitory with ancillary rooms to ward No. 3 female is in progress, and may soon be completed. This dormitory is to be used as an infirmary. It will be equipped with all the apparatus necessary for nursing aged patients.

There has been one serious casualty which occurred on September 25th last, to a female patient. She sustained a fractured femur due to a fall after getting out of bed during the night.

The patients have been free from any serious epidemics—apart from an outbreak of influenza affecting 40 ladies. There have been 2 cases of erysipelas.

Of the total of 155 nurses (88 males and 67 females), 103 have over five years' service, and only 16 have been nursing here for less than one year. The number of nurses who are certificated or registered in mental nursing is 77—49 men and 28 women.

The average weekly cost per head of maintenance last year was £6 1s. 2d.

Dr. Devine has to assist him Dr. Harper, Dr. Rutherford, Dr. Harris, and Dr. H. G. Bogle.

#### ST. ANN'S, CANFORD CLIFFS, BOURNEMOUTH.

*July 14th, 1937.*

I have this morning visited this branch of Holloway Sanatorium, and in the absence of the matron, Miss Lowe, have been shown round by Miss Martin, the assistant matron.

There are 22 ladies and 6 gentlemen here as certified patients, and 5 ladies and 1 gentleman as voluntary patients. I have seen and spoken to all of them with the exception of 2 ladies and 1 gentleman who were out for the day. The majority of the patients were sitting on the lawn overlooking the sea. They seemed to be very contented in delightful surroundings. One lady who is troubled very much by voices was in bed on account of her mental state. She requires constant supervision, and is, I believe, to return to Virginia Water. She does not, in my opinion, seem to be a suitable case to remain here.

Many of the lady patients are occupied in needlework, whilst some of the gentlemen are interested in knitting and rug-making.

I went over the house and found the bed and sitting rooms in excellent order.

The staff consists of 10 female and 2 male nurses.

#### THE LAWN, LINCOLN.

*November 10th, 1937.*

Since the last Commissioners' visit there have been 27 direct admissions to this registered hospital, and it is gratifying to be able to record that of this number no fewer than 20 were upon a voluntary basis. Of the remainder 2 were upon a temporary footing. Four deaths have taken place, all due to natural causes.



The names of 25 gentlemen and 62 ladies appear to-day upon the statutory books. With the exception of 4 ladies, who were absent upon trial, I have seen all of them, and have spoken to most. In particular I have paid attention to those patients who have been admitted since the last visit. I found each suited to his or her particular category with the exception of 1 lady who has been resident here for some years upon a voluntary basis.

The sitting-rooms were well warmed and are very pleasantly furnished. The single rooms and the dormitories in which patients were being nursed in bed were also properly warmed and bright in appearance.

It is hoped that the new nurses' home, at present nearing completion, will be available for the occupation of 25 nurses early in the new year. There is no doubt of the relief which it will afford in the main hospital in the matter of accommodation.

Eight gentlemen and 12 ladies are returned to me as usually attending Divine Service on Sundays.

MANCHESTER ROYAL HOSPITAL, CHEADLE.

*November 18th, 1937.*

We found in residence to-day 329 patients, in the proportion of 123 gentlemen to 206 ladies. Six gentlemen and 46 ladies were absent upon leave, either at Colwyn Bay or at home.

Since January 1st, 1937, there have been 215 direct admissions to this hospital. It is gratifying to be able to record that of this number 131 have been upon a voluntary basis. Fourteen temporary patients were also admitted.

Thirty-one deaths have occurred since the last visit on behalf of the Board; in 2 of these cases inquests were held.

We saw all the patients in residence, and spoke to the majority; in 4 cases we granted private interviews. Very few were being nursed in bed.

We found the hospital maintained throughout in its usual excellent condition. The rooms and galleries which are used for day purposes are extremely comfortable and well furnished, and there is a generous supply of flowers in all of them. The dormitories are large and pleasantly decorated, and equipped with a supply of running water.

The chimney breast, which constituted a disadvantage to the use of a strong room off the west dormitory, has been removed, several bathrooms have been remodelled and redecoration has taken place in several parts of the hospital. But the outstanding event of importance which has taken place since the last visit is the opening, upon August 24th, 1937, of the new nurses' home. This building affords accommodation for 72 nurses, and in its design, in the provision of sitting and study room, and in such matters as the equipment of bedrooms and bathrooms, impressed us as being a most valuable addition to the hospital.

We were interested to hear that the sister in charge of the home is attending a course of instruction in handicrafts.

We think that occupation of this sort might prove of much benefit to patients, particularly upon the male side.

We think that the excellent personal relations which prevail between the patients and the medical staff are in a large measure responsible for the contentment of the patients we have seen, but we have been impressed also by the high standard of medical and nursing care which is the rule in this hospital.

We had the pleasure of meeting the Chairman and two members of the Committee, and of discussing with them and the medical superintendent various matters relating to the welfare of the patients and the administration of the hospital.



## GLAN-Y-DON, COLWYN BAY.

*September 29th, 1937.*

Visiting here to-day I found 42 ladies and 7 gentlemen; 9 of the ladies are voluntary patients.

The ladies are accommodated in The Hall and the gentlemen in the Old House. Both houses are attractively furnished and kept in excellent order.

The nursing staff at The Hall consists of 7 day nurses and 1 night nurse, and at the Old House of 5 male nurses. The matron, Miss Nelson, superintends the nursing of both houses. Nearly all of the patients were out of doors to-day, some sitting in the attractive gardens, others out for a drive or walk. I saw the latter on their return. Four ladies have full parole, the remainder of the patients ground parole only. I believe the patients here to be very well cared for, and that everything possible is done for their comfort.

Miss Nelson was away on holiday. Dr. L. Harris-Liston kindly took me round.

## THE RETREAT, YORK.

*September 7th, 1937.*

I have to-day paid the second visit of the year to this hospital on behalf of my Board.

On the books are the names of 62 gentlemen and 133 ladies, of whom 19 gentlemen and 31 ladies are voluntary patients, and 4 ladies are here on a temporary basis. With the exception of 12 gentlemen who are at the holiday home at Filey, and 3 gentlemen and 5 ladies who are on leave of absence elsewhere, I saw all the patients and conversed with many. Since the last visit just over seven months ago there have been 66 direct admissions, 48 of these being on a voluntary basis. During the same period 52 patients have left or have been discharged.

The hospital is in its usual state of comfort, and the grounds are in excellent order. The outdoor swimming pool has proved a great attraction, and has been the means of stimulating the physical activities of some of the more retarded patients.

Great interest is taken in encouraging as many patients as possible to play outdoor games. Classes in physical exercises, with music, are taken on both sides each morning and, weekly, there are mixed classes in country dancing. There are 2 full-time occupation officers at present engaged in teaching the patients various handicrafts. This number is to be further increased by the appointment of a third officer in the immediate future. These officers work under the direction of the medical staff, and it is obvious in going round the wards that all members of the staff heartily co-operate in arousing the interest of all patients in some form of manual activity.

In progress at present is the installation of a hot-water heating system throughout the hospital, in place of the old steam-heating system. The hostel for male nurses, a new building with accommodation for 22, is nearing completion and, it is expected, will be ready for occupation in the course of a few months.

In the admission ward on the ladies' side a room has been set aside for clothing—each patient being allocated a wardrobe and two drawers.

The nursing care of the sick appears to receive considerable attention here, every opportunity being taken for open-air verandah treatment. I am satisfied that the patients are in receipt of skilled medical attention, much of which is conducted along psychotherapeutic lines. Many patients expressed gratitude for the help and kindness they had received.

Dr. Macleod continues to have the assistance of Dr. Beresford and Dr. Knight. Dr. Nicholson is here as a temporary assistant during the summer.



## ST. ANDREW'S HOSPITAL, NORTHAMPTON.

*October 28th, 1937.*

We found in residence to-day 156 gentlemen and 290 ladies. Those upon leave at Bryn-y-Neuadd are 71 gentlemen and 1 lady; in addition 3 gentlemen and 5 ladies are absent elsewhere upon trial.

The voluntary admission rate at this registered hospital continues at a high level; since January 1st, 1937, out of 109 direct admissions, 76 were upon a voluntary, and 13 upon a temporary basis.

There have been 23 deaths since the last Commissioners' visit; all but one were due to natural causes, and in the majority of cases the patients were of advanced years. The circumstances in which a patient sustained death due to a fractured skull at Bryn-y-Neuadd, were the subject of an inquest, and were fully reported to our Board.

We spoke to a large number of patients upon both sides of the hospital, and gave private interviews in four cases.

The chief improvements effected since the last visit include a new block on the female side of the centre, redecoration of the recreation hall with the instalment of new cinematograph apparatus for sound films, and a new lighting system. Additional bathrooms have been provided at Moulton Park Farm House.

One of us paid a brief visit to the nurses' home, which is of excellent design and well equipped.

## BRYN-Y-NEUADD, LLANFAIRFECHAN.

*September 30th, 1937.*

I have visited this house to-day and have seen all the gentlemen in residence; 24 left this morning for St. Andrews, and 23 are expected to arrive here tomorrow. There is only 1 lady here at present. She is accommodated at Hafod Fadog Villa.

Dr. Starkey was away on holiday, in his absence Dr. Bond, who is doing temporary duty here, took me round and introduced me to all of the patients.

There were 23 gentlemen at the hall, 20 at the annexe, and 3 at the villa.

The majority of the patients appear to appreciate the change to these surroundings. I was told that some of them have made decided improvement physically, with consequent benefit to their mental condition.

The house and grounds are kept in very good order; the surrounding views are most attractive. There is a most excellent cricket ground where the patients much enjoy games.

I am sure that the patients here are in receipt of excellent care and attention.

## THE WARNEFORD, OXFORD.

*November 8th, 1937.*

We found in residence to-day, 105 patients, in the proportion of 44 gentlemen and 61 ladies. Seven gentlemen and 14 ladies are here upon a voluntary footing and one lady is a temporary patient.

We saw all the patients in residence, and in 4 cases we granted private interviews. Two gentlemen and 2 ladies were absent upon trial.

The day-rooms were properly heated and well ventilated. In the new wings the number of sitting rooms is sufficient to allow patients a choice of room and of society. The bedrooms, without exception, are pleasant and well furnished.

Provision for occupational activities continues to be made on both sides of the hospital, and is of undoubted benefit to patients.



Twelve gentlemen and 25 ladies usually attend Divine Service on Sundays. There appears to be ample provision for recreation. Twenty-four patients of either sex are taken out fortnightly for drives, while the number attending associated entertainments is returned to us as being 22 gentlemen and 27 ladies.

Four deaths have taken place since the last visit. The circumstances of one case in which a patient, who was out for a short time with a relative, committed suicide, have been the subject of an inquest, and have been reported in detail to our Board.

#### WONFORD HOUSE, EXETER.

*September 21st, 1937.*

I have paid the second visit of the year to this hospital to-day, and accompanied by Dr. Eddison, have seen all the patients in residence with the exception of 2 ladies.

There are now on the statutory books of the hospital the names of 119 patients, of whom 45 are gentlemen and 74 ladies. Seven gentlemen and 5 ladies are here voluntarily, and 2 ladies are temporary patients. Thirteen ladies are at present away, so that the total number of patients resident to-day in the hospital is 106.

There have been no deaths since the visit paid by 2 Commissioners on June 14th of this year; 11 patients have been admitted and 6 have left.

Nearly all the patients I spoke with appeared to be very contented with the treatment they are in receipt of at this hospital. There were very few complaints, and these appeared to be due to the delusional state of the patients who made them.

I saw much evidence of the care and attention that is bestowed on the more difficult cases, and was particularly struck with their clean and tidy appearance.

Several of the ladies were in bed, the majority of them on account of senile changes, a few on account of mental stress; several of the former were to get up later in the day.

Some of the ladies were sitting in the garden, others were playing tennis. The grounds are well kept and very attractive.

Many of the ladies and a few of the gentlemen were occupied in handicrafts in the galleries. Occupational classes are held on 4 afternoons in the week.

I gave private interviews to 2 ladies and 1 gentleman.

#### NEWLANDS, DAWLISH.

*September 21st, 1937.*

I have visited this branch of Wonford House this afternoon. There are 9 ladies in residence and 1 away on holiday. There are also 2 ladies at Glebelands, a comfortable house on the hill just above Newlands and with grounds adjoining.

Both houses are kept in excellent order and the gardens are charming. Two ladies were playing croquet and there is a tennis court available.

All the patients appeared to be very contented and well cared for.

Miss Nicholls has to assist her a staff consisting of a sister and 3 nurses at Newlands and 1 nurse at Glebelands.

#### ROYAL VICTORIA HOSPITAL ("D" BLOCK), NETLEY.

*November 5th, 1937.*

This morning, after meeting Colonel Fraser, I accompanied Major G. W. Will to "D" block where there were 37 other ranks under care and treatment, the longest resident among them being 2 patients admitted about 2



months ago whose mental illness has greatly improved, and who are about to be transferred for the further treatment of physical ailments. Nine patients were in bed, several being newly admitted this week, 15 were in the convalescent section and the remainder occupied the day quarters of the admission ward.

It was particularly interesting to observe the types of illness among the patients and the intimate acquaintance which Major Will had acquired with the individual cases. Their reception for special care to this section of the hospital had clearly been necessary.

Since January 1st of this year there have been 244 admissions, including 2 officers; 69 patients arrived from overseas. One hundred and sixteen have been discharged recovered to their homes, and 32, where no home was available, to public assistance institutions, 37 patients were removed to mental hospitals, and 15 to Millbank and other hospitals for the treatment of physical conditions; 33 were returned to duty.

Several out door games are available, the most popular being football, for which an excellent ground has been provided, but there is no issue of football kit; as some 20 to 30 patients may be able to play it is desirable that the necessary garments be supplied.

There has been no use of seclusion since the last visit, nearly 13 months ago. A jacket has been applied in the case of 1 patient on two occasions, but the movement of the limbs and joints was not restricted. The wards are kept in an excellent state of order and cleanliness, but some of the walls of day-rooms could be brightened with the restoration of poster pictures in place of those removed at the last redecoration. A rack for bedpans and urine bottles would be useful in a sanitary annexe of the sick ward.

It is desirable to keep the door to the first floor corridor shut at night to serve as a smoke screen, otherwise, in an outbreak of fire, the entire gallery of side rooms might be filled with smoke and egress by the existing alternative exits obstructed.

I am glad to learn that the removal of the iron gates and railings, of forbidding aspect, between the admission ward and the visiting room, is contemplated; the archway will be converted into a corridor. A similar improvement would result from the removal of the iron grille on the lower half of the staircase to the convalescent section.

A low-pressure steam cooker has recently been installed in the kitchen and the walls part-tiled and the floor relaid in tiles. The nearest W.C. to the kitchen is in the quarters for the cooks and probationers. Some distinction is needed in the shapes of brushes used for the floor and those used in scrubbing the tables where food is prepared.

Reserves of coke having been piled outside the walls of some single and padded rooms, the ventilation has been found to be impeded and the erection of a new wall, as a barrier, is under consideration; possibly a temporary three-sided square of old railway sleepers would meet the need.

The admission of officer patients being as low as about 2 per annum it is perhaps not surprising that their main day room lacks the amenities of mess quarters. The heating of the corridor outside the bedrooms of this section is inadequate; one hopes that the suggestion of Major Will to add an electric radiator will be adopted, as a nurse has to remain on duty in this corridor throughout the night when this floor is occupied.

The present nursing staff consists of 30, of whom 19 are trained in this branch of nursing; 12 possess the Mental Nursing Orderly Certificate Class I, 6 the certificate of the Royal Medico-Psychological Association, and 4 other nurses are sitting for the forthcoming examination; 4 others have taken the preliminary examination. At present 4 nursing orderlies of the Royal



Air Force are attached to "D" block for a six months course of instruction. The remaining probationers belong to the Corps, and are under training for a like period after which they sit for the Mental Nursing Orderly Certificate Class III. Two years later they may enter for the Class I examination.

It is expected that Major Will is being transferred to other duties in the near future. In the meantime Major Rosie is assisting him with a view to taking temporary charge.

ROYAL NAVAL HOSPITAL, GREAT YARMOUTH.

*July 12th, 1937.*

I have to-day paid a visit to this hospital on behalf of my Board, and have seen 210 patients in residence, 26 of whom are officers.

Surgeon-Captain C. M. R. Thatcher, R.N., conducted me over the hospital and grounds indicating improvements and alterations made since the last visit 10 months ago, and informing me of those in contemplation. His detailed knowledge of his patients was of much assistance to me in successfully dealing with those who desired interviews.

Since the last visit there have been 9 admissions, 4 deaths and 5 discharges or transfers to other care. It is interesting to note that 7 patients have been admitted on transfer this year, the result, it is believed, of efforts to make the amenities for treatment at this hospital more widely known. It is, however, regrettable that in spite of these efforts there are to-day the same number of vacancies (48) as there were at the time of the last visit. From information supplied for the five years ending December 31st, 1936, the combined total of discharges and deaths has exceeded the admissions by 12 per cent.

The general health of the patients is excellent; only 3 or 4 were in bed to-day, and I was impressed by the high standard of nursing maintained in the sick wards.

The arrangements made for general comfort and happiness have succeeded in producing an atmosphere of contentment which must be a great satisfaction to all those contributing to this end, and I was not surprised to receive no complaints except such as arose from mental disorder.

There is plenty of healthy and useful outdoor employment to occupy those who are suitable and the majority were working in the grounds, gardens and greenhouses to-day. Also individual allotments have been introduced with great success providing an attractive form of competitive occupation.

Captain Thatcher believes that the therapeutic value of occupations is enhanced by creating a demand for products. Judging by the interest shown by the patients employed entirely on orders in the woodwork and other industries success is being obtained in both directions. Most of the material used is waste and in the process of manufacture opportunity is found for the employment of patients of all grades of mental deterioration.

Wooden toys, book racks, tea and card tables, articles of bedroom furniture, a gun cabinet, and a kitchen canteen were some of the productions in process of manufacture; also an order for the assembly of tricycle bodies and notice boards supplied by a firm of food distributors will provide remunerative work for some time. Other popular demands include wool floor rugs and leather articles.

If the demand for output is maintained consideration will have to be given to the provision of more space—the woodshop appeared rather crowded to-day.

Both outdoor and indoor recreations and amusements are well provided. To-day there was much activity in the sports field preparing for tomorrow's meeting. The local cinema proprietors are generous in extending invitations to parties of patients, and thus obviating the necessity for the installation of an apparatus in the hospital.



There is no fixed dietary, each week's menu being arranged according to supplies. The dinner served to-day was well cooked, ample in quantity and consumed with an appetite which left no doubt as to its excellent quality. The only criticism I can make is that the plates might have been warmer, a difficulty which, I am told, cannot be overcome except at considerable cost.

The accommodation generally is very comfortable and kept in good domestic order. Redecorations are proceeding in lighter colours though the range of these is somewhat limited.

Since the last visit renovations have been carried out in the recreation room of "B" upper; also in the cooks' cabin, bread-room and galley. An additional sitting and recreation-room in "C" upper; the rehangings of smoke doors to conform with fire regulations in "G" house and in the mens' bathroom and the tiling of some of the sanitary units are amongst the improvements made during the same period. Also much has been done to further improve the grounds by continuing reforestation and decorative lay-out.

Retiling of sanitary units will proceed throughout the hospital; a sanitary annexe is to be provided for the galley staff, and "D" house is to have a new stove in the ablution room and drying rails installed.

A carding machine is to replace hand-picking of mattress filling and a wash-house is to be converted into a drying room for patients' clothing.

#### BROADMOOR CRIMINAL ASYLUM.

1st November, 1937.

We visited this institution on behalf of our Board to-day. Unfortunately, the day was a very wet one, so that the patients were confined to their wards and we were thus unable to see many of the men at work on their normal occupations on the gardens and terraces.

During the course of our visit, we believe we saw all the patients in residence, 584 men and 173 women, or a total of 757. The circumstances of their detention at Broadmoor are as follows:—

	M.	F.	T.
During His Majesty's Pleasure:			
(a) Found insane on arraignment ...	210	77	287
(b) Found guilty but insane ...	279	85	364
Certified insane before trial ...	25	8	33
Patients certified insane after conviction ...	67	3	70
"Rate-aided" patients ...	3	—	3
	584	173	757

Visiting the male wards first, we found a large proportion of the men seated at tables with their possessions beside them and engaged in reading or hobbies of various sorts. No doubt had the day been fine many of these men would have been employed on outdoor work but generally we felt that there was considerable scope for the extension of more organized and useful work by them. It was pleasing, however, to find, on our tour of the women's side, that efforts had recently been made, with considerable success, to organize occupation therapy for that division, with the result that just over 75 per cent. of the women are now occupied and only approximately a quarter of those occupied are shewn as ward workers.

Several useful improvements have been made since the last visit, foremost among which may be mentioned the complete redecoration and refurnishing of female Block I. When visited by us in the late afternoon this block gave an impression of real comfort and it was evident, from conversations we had with many of its occupants, that they warmly appreciated what had been



done for them. Other items noted under this head include the laying of new composition floors in several rooms in both divisions, the installation of electrically-heated plate warming apparatus in male blocks 2 and 5, the provision of heating to the single rooms in male Block I and female Block 2 and the erection of a new dining hall for the female staff. Work is at present in progress on the internal redecoration and refurnishing of male blocks 2 and 5 and new and additional hot and cold water basins are being installed in the female blocks. The extensive alterations contemplated to the administrative buildings, which include a new concert hall, workshops, hospital accommodation, etc., have not yet been put in hand.

We spoke with many of the patients, including those isolated in single rooms, but received no complaints of any substance. As would be expected many whom we interviewed raised the question of their detention or asked to be transferred elsewhere but, after enquiring of Dr. Foulerton concerning their cases, we saw no reason to ask that any of them should receive further consideration.

We found 44 men and 12 women in bed : that is, just over 7 per cent. of the total in residence. Those that were sick appeared to be in receipt of good nursing and proper medical attention.

Beyond a mild epidemic of influenza in January last there has been complete freedom from infective disorders. Seven male patients are shewn as suffering from tuberculosis at the present time.

The mortality rate for the year ending December 31st, 1936, expressed in proportion of the total number of deaths to average number of patients in residence, was 3.36 (males 3.69—females 2.26). All the deaths were from natural causes and none appears to call for special mention.

There has only been one casualty of a serious nature since the last visit and that was a self inflicted wound. This almost entire absence of casualties speaks well for the supervision and tact exercised by the staff.

The present nursing staff consists of :—

						M.	F.	T.
Chief ...	...	...	...	...	...	1	1	2
Principal ...	...	...	...	...	...	10	2	12
Ordinary ...	...	...	...	...	...	138	46	184
						149	49	198

The above figures include 1 principal and 17 ordinary attendants on night duty in the male blocks and 6 ordinary attendants on night duty in the female blocks. In addition to the Superintendent, Dr. H. P. Foulerton, the resident medical staff consists of Dr. J. S. Hopwood (Deputy Superintendent) and Drs. Knox and Coates.



## APPENDIX C.

## ENTRIES BY COMMISSIONERS AT METROPOLITAN LICENSED HOUSES.

## BROOKE HOUSE, CLAPTON, E.5.

*October 6th, 1937.*

We have to-day paid the first visit of the quarter to this house and we have seen all the patients in residence, 64 in number—17 gentlemen and 47 ladies. Of the former 3 are voluntary and 14 are certified, and of the latter 10 are voluntary, 4 are temporary and 33 are certified.

Since the visit of our colleagues in August last 1 lady admitted as a voluntary patient left, and was subsequently re-admitted under certificate, and 3 other ladies were also admitted on a voluntary basis, and 1 lady as a temporary patient.

During the same period 4 ladies—1 voluntary, 3 certified—left or were discharged. Two ladies have died from natural causes. There are no changes to record on the gentlemen's side.

We paid particular attention to all newly admitted patients, and consider the lady under certificate rightly detained.

We are reporting separately to our Board regarding the new temporary patient.

The house was in good order and well warmed.

The patients generally were in receipt of all due attention and nursing care.

## CAMBERWELL HOUSE, CAMBERWELL, S.E.5.

*November 4th, 1937.*

We have to-day visited this house on behalf of the Board. All patients in residence were seen by us, but only one patient requested a private interview. At the time of our visit the day-rooms and dormitories were very quiet; most of the noisier patients had been induced to take exercise in the gardens. Twenty-eight ladies attended the industrial class this morning, and it was gratifying to see such a variety of recreational activities being attempted. Physical exercises are organized regularly and systematically for the younger patients.

The general fabric is kept in good condition, and even at this time of the year the gardens look attractive. Recently a hairdressing room adjacent to the badminton hall has been completed and suitably equipped; patients have readily taken advantage of these facilities. We note with pleasure that seven of the male nurses' single rooms have been repaired and redecorated. Several others are receiving similar attention.

In the course of our visit we examined some of the ward medicine cupboards. With rare exceptions these cupboards contain drugs issued in daily quantities, and any drug issued but not given to the patient is returned to the dispensary each morning. We discussed with Dr. Norman the statutory rules relating to the issue of Schedule I drugs to the various wards and certain "special precautions" which seem desirable in a hospital for mental patients.

To-day there are 273 patients in residence—58 voluntary, 2 temporary, and the remaining 213 are certified. Twenty-one patients, 18 of whom are at Hove Villa, are on leave at present.

## HOVE VILLA, BRIGHTON.

*March 11th, 1937.*

There are 20 patients in residence to-day, and 1 on leave elsewhere following an operation. I saw and spoke to all those who are here, finding them, on the whole, contented. Three remain on a voluntary basis; the



remainder are under certificate. One lady has died since last visit. With the exception of 1 patient who was in bed recovering from a slight chill, everyone was up and about. I had a private talk with 1 patient.

The conservatory mentioned in the last report is now used as a sun lounge, and is an evident asset. I understand that repairs to the roof are to be carried out. The individual gardens are a great source of pleasure to the patients who tend them. I was interested to see one kept by a patient who is physically a cripple. A hut at Henfield where parties sometimes go to picnic was described to me, and must do a good deal to vary the lives of those who are unable to take part in outside activities.

The house is clean, warm and orderly, but in one or two matters I think that a small expenditure could produce considerable improvement. In the downstairs ladies' cloak-room the provision of small curtains to cover an assortment of flower vases kept there, the repair or replacement of broken cane work, and the fitting of a small rail and coat hangers would do much to brighten this rather desolate little room. In the bathrooms the plain zinc flooring, broken in one place, the plaster wall with paint wearing off; the remains of linoleum adhering to the boarding by the basins, and lack of comfortable floor covering could, I think, be simply remedied.

The wall-papers in almost all the rooms are an old-fashioned type, heavily patterned in colours. While the choice of wall-paper is a matter of taste on which opinions vary, I have no doubt that the general effect of the use of simple light wall-papers of modern type would add greatly to the brightness of the house, when redecoration is done. The outside stairs leading to the kitchen have been repaired.

The patients here are, in my opinion, very well cared for. Dr. Boyle and Dr. Martin visit weekly. With the latter I was able to talk by telephone.

#### CHISWICK HOUSE, PINNER, MIDDLESEX.

*October 15th, 1937.*

Visiting Chiswick House to-day I found in residence 5 gentlemen and 17 ladies. The former are all under certificate; of the latter, 2 are on a voluntary basis, the remainder being under certificate.

The only change in the patients here since the last visit is that 2 ladies, here then as voluntary patients, have now gone to Russells.

The house and grounds are in their usual excellent order, and it is evident that the patients receive every care and attention.

Dr. Macaulay accompanied me on my visit.

#### CLARENCE LODGE, CLAPHAM PARK, S.W.4.

*November 18th, 1937.*

My visit was paid early in the morning on this cold and dismal day, and all the patients were indoors and most appreciative of the good fires and comfortable rooms. One lady, who has been very ill, was in bed, and appeared to be receiving every care.

Two voluntary patients have left since the last visit, and 1 has been admitted.

One lady who is here as a temporary patient, admitted June 17th, 1937, expressed to me a great desire to stay; she is over 80 years of age, and I hope arrangements may be made for her to remain here on a voluntary footing.

The house was in good order, and the ladies are living in a very happy and home-like atmosphere which they obviously appreciate.



FEATHERSTONE LODGE, ELIOT BANK, S.E.23.

*December 6th, 1937.*

Three ladies have been admitted since the last visit, otherwise there is no change to record.

There are 10 ladies in residence, of whom 4 are upon a voluntary basis, the remainder being under certificate. Two of those newly admitted are suitable to remain in their present category; in the case of the third I am reporting to the Board.

All the rooms which I entered were comfortably and pleasantly furnished, and were suitably warmed.

FENSTANTON, CHRISTCHURCH ROAD, STREATHAM HILL, S.W.2.

*October 30th, 1937.*

At the commencement of my visit this morning there were 28 ladies in residence, 5 of whom are voluntary, and 2 are temporary patients. One of the latter has much improved, and is now able to express her willingness to receive treatment. During the visit another lady was received as a certified patient, making a total of 29.

Nine ladies are spending the day in bed, some on account of physical conditions, and others because of their mental states. Discussing the lines of treatment of several patients with Dr. Booth, I am assured of the thoroughly good care, both medical and nursing, which these ladies are receiving. The greater number were out walking in the large garden after the mid-morning, having been occupied in various handicrafts earlier.

Additional accommodation has recently been erected, for occupational purposes, and is now awaiting furniture. Above this pleasant room, and the adjoining store-room, are two additional bedrooms, and across the corridor, a new spacious lavatory and cloakroom.

It would, I think, improve the appearance of the north end drawing-room, were a couple of attractively coloured pictures, unglazed, added to the walls.

The rooms throughout are comfortably furnished and well kept.

Since the last visit 6 voluntary patients have left, and 5 have been admitted, in addition to 1 temporary patient, and the certified patient who was received this morning, whose illness appears to require care under certificate.

THE FLOWER HOUSE, BECKENHAM HILL ROAD, S.E.6.

*October 26th, 1937.*

Since the last visit 3 gentlemen have come here as voluntary patients, 3 have left and 2 have died.

In residence to-day are 30 gentlemen, 10 on a voluntary basis, and 20 under certificate; I saw and spoke to all the patients with the exception of 3, who were out for the day.

The house and grounds were in very good order, and the patients appeared comfortable and well cared for in every way.

I had the advantage of discussing the condition of the patients with Dr. Waterhouse and Dr. Edkins.

HALLIFORD HOUSE, UPPER HALLIFORD, SHEPPERTON.

*October 25th, 1937.*

Since the last visit 2 patients have been admitted—I a gentlemen, a voluntary patient, and 1 lady under certificate. There are to-day the names of 10 gentlemen and 16 ladies on the books. With the exception of 1 lady who is out for the day we have seen and spoken to all the patients.



There were no cases in bed to-day. Important alterations and additions are being made to the accommodation on the female side, including new bathroom, lavatory basins, etc. We were very sorry to hear of Dr. Haslett's illness. He has recently retired from the post of resident medical officer which he has occupied for 46 years. He has been succeeded by Dr. R. A. Stewart, who took us round to-day.

HAYES PARK, HAYES, MIDDLESEX.

*October 19th, 1937.*

There are 19 patients in residence to-day, and of these 2 have been admitted since the last visit on September 16th—1 a temporary patient, and the other voluntary. I have seen and spoken to each of those in residence, and am satisfied that they are suitably detained in their respective categories. One lady, a temporary patient, has been transferred to Moorcroft, and 2 voluntary patients have left. I gave one private interview.

The health of the patients is satisfactory, and I found their accommodation, sitting-room and bedrooms in good order.

JAMNAGAR HOUSE, STAINES, MIDDLESEX.

*October 26th, 1937.*

In residence here to-day are 9 ladies, 5 on a voluntary basis and 4 under certificate. Since the last visit 1 lady has come as a voluntary patient, 3 have been admitted under certificate, and 1, previously here on a voluntary basis, has been certified.

The majority of these ladies have their own day and night nurses, and in consequence of this a great deal of individual care and attention can be paid to every patient.

In the absence of Dr. Macfarlane we were taken round by the matron.

MEAD HOUSE, HAYES, MIDDLESEX.

*October 19th, 1937.*

There are 14 ladies in residence of whom 6 are on a voluntary basis and 8 are under certificate. I am satisfied that they are suitably detained in their respective categories.

Since the last visit on July 28th, 3 ladies were admitted as voluntary patients, and 1 of these has since left. There are no other changes to report. I found the day-rooms and bedrooms comfortable and warm.

The nursing staff consists of the matron, 8 nurses for day and 2 for night.

MOORCROFT, HILLINGDON, MIDDLESEX.

*December 8th, 1937.*

At our visit to-day we found in residence 37 gentlemen and 9 ladies. Of the former 13 are voluntary and 24 are certified patients. On the ladies' side there are 2 voluntary, 2 temporary, and 5 certified patients.

Two gentlemen and 1 lady have been admitted on a voluntary footing since the last visit, and 1 lady upon a temporary basis. Three voluntary patients (2 gentlemen and 1 lady) have left; of these 1 gentleman and 1 lady were certified and sent to other care. One gentleman has been discharged from certificate.

The house was in its usual excellent order. We think that the question of providing external illumination for the fire escape in the west wing should receive consideration in the course of the present process of re-wiring.



## NEWLANDS HOUSE, TOOTING BEC COMMON, S.W.17.

*November 10th, 1937.*

There are to-day 17 ladies and 6 gentlemen in residence, all of whom I have seen. Twelve of the ladies and the 6 gentlemen are under certificate; 4 ladies are voluntary and 1 is a temporary patient. One temporary and 1 voluntary patient have been admitted since the last visit.

Dry rot has been discovered in the front part of the house, and extensive repairs and redecorations are in process. This has not been allowed to affect the comfort of the patients in any way, and the rooms they occupy are in excellent order. Many of the patients spoke to me with appreciation of the care and sympathy they receive and the atmosphere in the home is a happy one.

In addition to the matron the nursing staff consists of 10 female and 3 male nurses; 5 of the women and 1 of the men hold the R.M.P.A. certificate for mental nursing.

## NORTHUMBERLAND HOUSE, FINSBURY-PARK, N.4.

*October 6th, 1937.*

Visiting this house to-day we have found the names of 30 gentlemen and 40 ladies in the statutory books; with the exception of 2 of the former, who are voluntary patients, and who are on leave at Kearsney Court or elsewhere, and one of the latter who was out for the day, we have seen and spoken to all these patients. In one case, that of a lady under certificate, we granted a private interview. Of the gentlemen 12 are voluntary and 18 certified, and of the ladies 13 are voluntary, 1 is temporary, and the remainder are certified.

Since the last visit to see all patients 1 gentleman and 2 ladies have died, 2 as a result of broncho-pneumonia, and 1 following a major operation.

Other changes since one of our colleagues visited to see new patients on September 4th last, were the regrading to the voluntary category of 1 male patient admitted on an Urgency Order previous to that date, and the admission of 2 gentlemen and 2 ladies under certificate. We paid particular attention to the newly admitted certified patients, and consider that they are rightly detained. Three voluntary male patients have left during the same period.

The house was in very good order and the policy of modernization of the patients' part of the buildings and their redecoration is being actively continued with excellent results.

We have been interested to find that the cardiazol treatment of dementia praecox has recently been started here.

The nursing staff consists of 14 male and 14 female nurses, 2 of the former and 4 of the latter being on night duty.

## OTTO HOUSE, 44, SYDENHAM HILL, S.E.26.

*October 26th, 1937.*

In residence here are 16 ladies, of whom 3 are on a voluntary basis.

The only changes since the last visit have been that 1 lady came as a voluntary patient for a short time and another lady was transferred elsewhere.

The patients here live in comfortable surroundings, and the attitude of the staff to the patients is one of kindly understanding and sympathy. Miss Alexander took me round the house.



## PECKHAM HOUSE, PECKHAM, S.E.15.

*October 18th, 1937.*

At our visit to this house to-day there appeared on the books the names of 262 patients (69 gentlemen and 193 ladies), of whom 63 are voluntary and 2 are temporary patients. Concerning 2 of the voluntary and 1 of the temporary patients we are making a report to our Board. We have paid particular attention to the recently admitted cases, and are satisfied that they are in their correct categories with the exception of 1 lady under certificates about whom we are also making a report. All the patients were in residence with the exception of 12 (6 of each sex), who were away on leave at Kearsney Court. We spoke with many and found them as contented as their mental condition would allow. Six private interviews were requested and given.

Since the visit on behalf of our Board last July according to the statistics placed before us, the direct admissions number 44, 2 being temporary and 33 being voluntary patients. Fifteen have been discharged and 27 have left; 3 of the former and 3 of the latter being stated as having recovered. Four ladies and 2 gentlemen have died from natural causes. One gentleman and 2 ladies have sustained fractures, one of which was caused by another patient, the other 2 were accidental.

During the course of our visit we found the day-rooms and dormitories well kept and clean, and as far as possible made bright with cut flowers. Reference has been made in a previous entry to schemes being under consideration for the alteration and reconditioning of some of the wards on the male side. We discussed this with Dr. King, who informed us that so far no decision has been arrived at as regards the future of the whole of the male side and some wards on the female side. We feel the time has now arrived when a decision might be taken on these matters as in the meanwhile the necessary alterations and reconditioning are in consequence being held up.

We have to thank Dr. King and his assistant officers for their assistance throughout the course of our visit.

## KEARSNEY COURT, DOVER.

*June 29th, 1937.*

There are to-day 18 patients in residence, 3 of whom are gentlemen and the remainder ladies, 1 is a temporary patient and 3 are voluntary.

I saw all the patients in residence except 5 ladies who had gone out for a motor drive, and found them as happy and contented as their mental conditions permit.

The house and beautiful grounds are in excellent order and this morning looked particularly attractive.

Miss Lowe, the matron, is now assisted by Miss Loader, formerly at Malling Place.

I have asked that a special report on the lady who is a temporary patient be sent to my Board in one month.

## THE PRIORY, ROEHAMPTON.

*October 7th, 1937.*

There are to-day 85 patients in residence here—47 ladies and 38 gentlemen. Five of the ladies and 4 of the gentlemen are voluntary patients, while there are 2 temporary patients, 1 of each sex.

One gentleman, a certified patient, is on leave, making a total of 86 on the books.



Since the visit of our colleagues in August last, 4 ladies (2 voluntary, 1 certified and 1 temporary patient), and 1 gentleman, a temporary patient, have been admitted, while 2 ladies and 1 gentleman, all voluntary patients, have left.

With the exception of 1 lady and 1 gentleman, who were out, we saw all the patients in residence, and with all who desired it we had conversation. Apart from appeals for liberty, which, however, were few, we had no complaints made to us, and, indeed, we are confident that the ladies and gentlemen here receive most kindly and sympathetic care and attention from both the medical and nursing staff.

The beautiful house and grounds are in excellent order, and the rooms everywhere are comfortable and attractive.

We were glad to learn that there is on the staff a trained lady occupation therapist, and that both on the ladies' and gentlemen's side of the house there is an occupation room. Some half-dozen patients attend at each room, and in addition a good deal of work is done by ladies and gentlemen in their own rooms.

We were accompanied throughout our visit by Dr. Basil Brown and by Dr. G. V. Stephenson, both of whom gave us every assistance.

WOOD END HOUSE, HAYES, MIDDLESEX.

*October 19th, 1937.*

There are 13 patients in residence to-day. One lady, a voluntary patient, has left since the last visit.

I have spoken to each of the patients, and all at the moment are in reasonably good health.

The several sitting-rooms and bed-rooms are in good order. The nursing staff consists of the matron, 7 nurses for duty by day and 1 at night.

WYKE HOUSE, ISLEWORTH, MIDDLESEX.

*October 12th, 1937.*

There are to-day 13 ladies and 14 gentlemen resident here; 4 of the ladies and 3 of the gentlemen are voluntary patients, 1 of the ladies is a temporary patient, while the remainder are detained under certificate.

With the exception of 1 gentleman, who was out, I saw all the patients in residence, and found them comfortable and as happy as their respective mental conditions allow.

I was particularly struck by the evidence of careful and sympathetic nursing on both sides of the house, and I have no doubt that the ladies and gentlemen are in receipt of excellent and kindly care.

I was glad to learn that a trained occupation therapist attends regularly.



## APPENDIX D

## ENTRIES BY COMMISSIONERS AT PROVINCIAL LICENSED HOUSES.

## ASHBROOK HALL, HOLLINGTON, ST. LEONARDS-ON-SEA.

*October 19th, 1937.*

Since the visit of my colleague and myself in February last 1 lady has died and 1 has been admitted. There are, therefore, still 5 ladies here. I have seen and spoken to all the patients in residence, and have found them comfortable and uncomplaining.

Apart from colds there has been no recent illness here.

I have endorsed the licence granted by the justices on April 1st, 1937.

## ASHWOOD HOUSE, KINGSWINFORD, DUDLEY.

*October 20th, 1937.*

Since last visit on March 15th, 1937, there have been 3 ladies admitted, 2 under certificate and 1 on a voluntary basis, and 1 gentleman as a voluntary patient who has since been discharged cured. One lady has been transferred and 1 lady died from natural causes, leaving 24 in residence, viz., 17 ladies, 1 of whom is a voluntary patient and 7 gentlemen, of whom 1 is on a voluntary basis.

I saw all the patients in residence, and spoke to each one; all are suitably classified with the exception of 1 about whom I am reporting to my Board. The patients were all up except 1 lady who is very ill. The patients were, for the most part, employed at handicraft work, and some of the ladies were doing very nice embroidery and knitting, whilst on the male side I saw some nice rugs.

The patients were neatly dressed and several expressed their appreciation of the care and attention they were receiving.

The house was in good order everywhere, and I am satisfied that the patients are kindly treated and well supervised under very homely conditions.

I regret to report the death since last visit of Dr. Pietersen, whose connection with this licensed house has extended for just over 48 years, during which time it has been very efficiently conducted, and on behalf of my Board wish to express to Mrs. Pietersen our deepest sympathy.

Dr. Fenn has been resident medical officer for the last few months. He accompanied me round, and I have to thank him for much useful information regarding the patients.

At my visit I signed the licence.

## BAILBROOK HOUSE, BATHEASTON, BATH.

*August 10th, 1937.*

I was unfortunate enough to find that Dr. Guirdham was away on holiday when I visited this afternoon, but Sister Lewis accompanied me throughout my visit, and rendered me every assistance.

It was interesting to hear that a whole-time occupation therapy officer had recently been appointed. This lady has received a thorough training in occupational work, and the value of the classes and individual attention she gives has been most apparent.

Many of the ladies were being nursed out of doors, either on the verandah or in tents on the lawns. These tents have also been introduced on the gentlemen's side, and are used by bed patients during the day time.



I saw all the ladies and gentlemen in residence during my visit and spoke to each, and I had a private interview with 1 lady. Of a total of 38 patients 8 are gentlemen and 30 ladies, of the former 5 and of the latter 9 are voluntary patients. Since the last visit the admissions have totalled 34: 31 voluntary (including 4 re-admissions), 1 temporary, and 2 certified cases. I paid particular attention to the newly admitted patients, and considered those under certificates rightly detained. In the same period 26 patients have left or been discharged, and 3 patients, 2 voluntary and 1 temporary, have died.

The house was in good order and is comfortably furnished. A number of alterations are in progress, and a certain amount of repairs and redecoration is also being carried on.

I have endorsed the licence which was renewed at the Easter Quarter Sessions.

BISHOPSTONE HOUSE, BEDFORD.

*November 29th, 1937.*

Dr. J. L. Macaulay took up duties as resident medical licensee superintendent on October 1st, 1937. Dr. A. J. Chillingworth continues to be the visiting medical officer. There are 9 ladies in residence, of whom 2 are voluntary cases. The nursing staff consists of 3 nurses and a domestic staff of a non-resident chef and maids.

There is little call for special comment at this moment, but I recommend that all the clinical notes should be brought up-to-date.

I have not signed the licence as the document is not available.

BRISLINGTON HOUSE, BRISTOL.

*September 7th, 1937.*

There were in residence to-day 76 patients, 22 gentlemen and 54 ladies. Since the last visit 6 voluntary and 3 certified patients have been admitted and 1 lady admitted on a temporary footing was later regraded to the certified class. During the same period 5 voluntary patients left and 1 certified patient was discharged. Deaths numbered 4 and in 1 case, that of a voluntary patient, death was due to drowning, the verdict returned being "found drowned." The accident occurred beyond the confines of the estate.

I saw all the patients and found most of them in the gardens enjoying the sunshine. A special interview was granted to one lady. I found the various bedrooms and sitting-rooms in their usual good order. In the kitchen premises a large refrigerator has been installed.

Considerable improvements are in process of being carried out in the cowsheds and associated premises. Modernization of the stalling for the cows has been completed, better ventilation and lighting provided, and a large tank for manure liquid is to be built at some distance from the cowsheds. A new dairy is to be provided and a steam supply is now being laid to the dairy premises for the sterilising equipment. The present herd of cows has been tuberculin tested, and this with the markedly improved conditions in the cowsheds should ensure a milk supply of a high purity standard.

Dr. Fox and Dr. Rutherford have referred to the satisfactory results obtained here from insulin treatment. This is a modified form of insulin treatment distinct from that of "insulin shock therapy" more recently introduced into certain mental hospitals, and it has been in use at this house for a few years. Its beneficial results have been noted in agitated as well as excited states, a sedative effect being produced as well as a marked improvement in the physical health. Schizophrenics and elderly patients have responded well to the treatment, and I consider that a summary of the results obtained would be of interest at the present juncture.



## COURT HALL, KENTON, EXETER.

*July 7th, 1937.*

The same 8 ladies who were in residence here at the last visit are here to-day and I have seen and spoken to each of them.

All the ladies except one were up and for the most part sitting in the garden. There are many evidences of the care and affection bestowed on the patients at Court Hall to be observed even on a short visit, and it is very pleasant to see the amount of freedom enjoyed by patients who are in an acute phase.

The house and gardens were in their usual perfect order.

## FIDDINGTON HOUSE, MARKET LAVINGTON.

*August 9th, 1937.*

Visiting this house to-day I have found 26 patients in residence, 7 gentlemen (3 of whom are voluntary) and 19 ladies (3 being voluntary patients). With one exception—a gentleman who was away for the week-end—I have seen and spoken to all these patients, and I have given 3 private interviews.

Since the last visit, 1 gentleman whose certificate had lapsed has been re-certified, and 1 lady under certificate has been received in transfer from another mental hospital. During the same period 1 lady voluntary patient has left. There have been no other changes to record.

The house was in good order and a number of repairs and some redecoration have been carried out recently. On the gentlemen's side improvements to the water supply have also been made.

As the day is such a fine one most of the ladies and gentlemen were out of doors where I saw them, and were enjoying the charmingly laid out gardens.

Only 1 lady was in bed, and she appeared to be receiving every attention.

The nursing staff consists of the matron and 6 female and 4 male nurses. One of the female nurses is on night duty.

## GLENDOSSILL, HENLEY IN ARDEN.

*December 10th, 1937.*

Paying the second visit of the year on behalf of my Board I have seen the 9 gentlemen and 27 ladies in residence here to-day. One gentleman and 3 ladies are here on a voluntary footing, 1 lady is a temporary patient and the remainder are under certificate.

Since the last visit 6 gentlemen and 6 ladies have been received, 1 lady has been regraded from the temporary to the certified class and 2 ladies have died.

All the sitting rooms are comfortably warm and well ventilated, those on the female side are adequately furnished, but those on the male side are still dull in appearance.

A number of the ladies occupy themselves with simple handicrafts, such as sewing, knitting, rug-making. In the summer there are plentiful outdoor amusements and recreations in the grounds here; in the winter those who are physically fit are taken for country walks.

I received no complaints of any kind, and 1 or 2 patients expressed unsolicited appreciation of the conditions here.

The present nursing staff consists of the matron, 4 female and 3 male nurses. One female nurse is on duty by night.



THE GRANGE, KIMBERWORTH, ROTHERHAM.

*December 2nd, 1937.*

There are to-day 18 ladies in residence, all of whom I have seen this morning. Four are voluntary patients, the others are certified. One lady, a voluntary patient, received 2 days ago, was found on admission to be suffering from pneumonia.

Nine of the ladies were in bed at the time of my visit, but some of them will be up during the afternoon. They were all receiving very careful attention from both a medical and a nursing point of view. The present nursing staff numbers 12, of whom 3 are on night duty. The rooms were comfortably and suitably warmed; the redecorations which were in progress during my previous visit have been completed. The weather being inclement no ladies were out of doors.

A garment has been designed for an elderly blind patient of restless habits to prevent her falling out of bed; I have suggested to Dr. Mould the use of a different kind of mattress in connection with this garment.

There have been no deaths since the last visit. Five voluntary patients have been admitted as well as 2 certified patients; in addition 1 lady, whose order lapsed, has been recertified. These fresh admissions appear to me to be proper to their respective status.

GRETA BANK, BURTON-IN-LONSDALE.

*11th November, 1937.*

The same seven ladies were in residence to-day as at the time of the last visit from my Board. I have seen them all and found them happy and contented. Nearly all were occupied in some way and seated in the comfortable drawing room. Alterations to the lavatory and bathing arrangements and additional accommodation for storage of clothing are to be put in hand shortly; also repairs to the roof and internal redecorations are to be done.

A permanent nurse has been engaged and then there will be a full staff of two nurses, cook and housemaid.

I have signed the licence granted on the 4th of October.

THE GROVE, CATTON, NORWICH.

*28th October, 1937.*

There were to-day the names of 19 ladies on the books; six of these are on a voluntary footing, and there are no temporary patients.

Since the last visit two voluntary patients have left on recovery and one certified case was discharged 'relieved'; also one lady (a certified patient) has died from natural causes. Three voluntary patients and one certified patient have been admitted during the period.

I have seen all the ladies to-day, including the new admissions, and found them suitable to remain.

The house generally was in its usual state of excellent order. The absence of any suggestion of open restriction has always been a feature of this house, and I am sure that it is thoroughly appreciated by the patients.

Many of the ladies were out walking this morning in the grounds, while others were occupied indoors.

Only 3 ladies were in bed; two were bedridden and one was a recent admission in the acute stage.

I signed the licence granted by the Justices on 22nd October.



## THE GROVE HOUSE, CHURCH STRETTON.

*September 28th, 1937.*

I have paid the second visit of the year to this house today. There are 26 patients in residence, 2 of these being here as voluntary patients and the remainder under certificates.

Since the last visit 4 patients have been admitted—3 of them under certificates and 1 on a voluntary basis.

There has been 1 death, from natural causes.

I have seen and spoken to all of the ladies in residence, and have found them to be well-cared for under suitable and comfortable conditions. I have seen much evidence of the pleasant relations that exist between the patients and those responsible for their care.

Three of the patients were in bed recovering from colds.

The house is kept in excellent order and the gardens are attractive.

I endorsed the licence which was renewed at the Salop Quarter Sessions in July.

## HAYDOCK LODGE, NEWTON-LE-WILLOWS.

*November 9th, 1937.*

Since the visit of my colleague and myself in June, 6 gentlemen and 11 ladies have been admitted, 4 and 7 respectively, as voluntary patients: 6 gentlemen and 7 ladies have left or been discharged (of whom 3 ladies had recovered), and 2 gentlemen and 4 ladies have died from natural causes. There were the names of 65 gentlemen and 73 ladies on the books, 1 of the latter was at home on trial, leaving 137 patients in residence, all of whom I have seen with the exception of 2 gentlemen out walking. No complaints were made to me except on the score of detention; 1 gentleman was given a private interview.

I found the house in excellent order, and it is evident that much consideration is given to the care and comfort of the patients.

Recently a canteen has been started. It is very popular, and the profits will be devoted to the creation of a lending library of recent books.

Three gentlemen and 6 ladies were in bed in the hospital wards. The arrangements made for their nursing are quite satisfactory, and the wards themselves are light, airy and well-found.

I have signed the licence granted on October 12th, 1937, by the Justices at the Quarter Sessions.

## HEIGHAM HALL, NORWICH.

*October 28th, 1937.*

There were the names of 26 gentlemen and 56 ladies on the books today under the following categories :—

					Voluntary.	Temporary.	Certified.
Gentlemen	...	...	...	...	7	2	17
Ladies	...	...	...	...	10	3	43

I have seen them all with the exception of 6 ladies and 1 gentleman on leave of absence or trial and 4 gentlemen and 1 lady who were out for the afternoon.

Since the last visit 9 gentlemen and 12 ladies have been admitted as voluntary patients, 1 gentleman and 5 ladies as temporary patients; also 7 gentlemen and 7 ladies certified. Fourteen voluntary patients have left, 1 temporary and 4 certified patients have been discharged. Eight patients—3 gentlemen and 5 ladies—have died from natural causes.



With the exception of 1 lady temporary patient, as to whose suitability to remain in this status I am reporting to my Board, I am satisfied that those patients admitted during the period covered by this entry are suitable to remain.

I gave 1 lady a private interview, and spoke to all the other patients who could converse. They had no complaints that did not arise out of their deranged mental condition, and not a few expressed gratitude for the treatment afforded them.

Extensive alterations and additions are in progress on the ladies' side (a) to provide extra sanitary accommodation on the first and ground floors—this work is nearing completion, and (b) extension of existing dining-room and conversion of adjoining conservatory as a pantry.

The house generally was in good order and very comfortable.

KINGSDOWN HOUSE, BOX, WILTS.

*August 17th, 1937.*

Dr. C. A. Stone took up duties as resident medical officer of this licensed house on July 25th; G. T. M. MacBryan, Esq., is the other licensee of these premises. The latter will also take up residence shortly.

In company with Dr. Stone I inspected the whole of the premises and saw all the patients. There were in residence at the time of my visit 22 ladies, of whom 17 were under certificate and 5 were on a voluntary basis. I gave a private interview to 2 ladies.

Since the last visit there have been 8 admissions—2 ladies as certified patients and 6 on a voluntary basis. During the same period 4 voluntary patients have left and 1, a certified patient, has been transferred elsewhere. There has been 1 death from natural causes.

Electric lighting, derived from the main supply, is being installed throughout the whole of the building. Extensions, redecorations and repair of the sun lounge are also being carried out and, when completed will improve the amenities provided for the indoor recreation of the patients.

Many of the bedrooms need redecoration; wall paper having pleasanter designs and of more cheerful colour would improve their appearance, and in some rooms at least, furniture of a modern type should be introduced. This should include bedsteads, as many of those now in use are of a rather old-fashioned type.

The provision of a dispensary and clinical room is desirable—the present arrangements are awkward and otherwise unsatisfactory.

I consider it would be an advantage to have a qualified nurse on the staff. At the same time I feel sure that the patients receive kindly attention and care from the present nursing staff.

The nursing staff at the moment consists of the matron, her assistant and seven nurses.

Of these 1 is on night duty, but the normal number on night duty is 2. There is in addition a domestic staff of 7 maids and a cook.

Dr. Stone is anxious to bring up to date as much as possible the standards of a home which has had a long history, and which seeks to attract and treat patients suffering from the early symptoms of mental disease.

LAVERSTOCK HOUSE, SALISBURY.

*October 15th, 1937.*

Most of the ladies and gentlemen were out in the gardens today at the time of my visit, and I saw and spoke to them there. Only 1 lady asked for a private interview.

Those patients in bed for mental or physical reasons were being carefully nursed, and their bedrooms were warm and their bedding sufficient.



Several points raised in the last Report have received attention.

The number of patients in residence to-day was 66; 27 gentlemen and 39 ladies. Seven patients of each sex are voluntary patients, 1 gentleman is on a temporary footing, and the remainder are under certificates.

One lady is at present out on leave, giving a total of 67 on the statutory books. With the exception of 2 gentlemen and 3 ladies out for the afternoon, I saw all the patients in residence. I paid particular attention to all newly admitted patients since the last visit, 7 voluntary, 4 temporary and 6 certified have been admitted. I consider those under certificate to be rightly detained. In the same period 3 gentlemen and 8 ladies have left or been discharged and 2 gentlemen and 1 lady have died. Death in each case was due to natural causes.

#### LITTLETON HALL, BRENTWOOD.

*October 25th, 1937.*

I have today paid the second visit of the year to this house on behalf of my Board, and have seen all the patients with the exception of 1 voluntary patient who is at home on trial.

The numbers in residence today are 15 certified and 6 on a voluntary footing, giving a total of 22 ladies, including the voluntary patient mentioned above.

Since the last visit 4 patients have been admitted, of whom 3 were voluntary (1 being regraded), and 1 lady voluntary patient and 2 certified patients have left or been discharged; the patient regraded was a temporary patient.

I gave one private interview.

The house was in good order; certain redecorations have been carried out, and others are to follow. The care and attention given is satisfactory, and those who are in bed sick (4) are properly looked after.

The nursing staff consists of Miss Wilson, a doubly-trained sister, and 10 nurses for day with 1 relief; for night there are 4 and 1 relief.

The licence granted early in this month has not yet been delivered to Dr. Haynes.

#### MALLING PLACE, KENT.

*September 29th, 1937.*

I have today paid the second visit of the year on behalf of my Board, and, with the exception of one gentleman who was out walking, I have seen all the patients in residence. I found them comfortable and well cared for, and as contented as their respective mental conditions allow. No complaints were made to me.

Since the last visit, 1 lady has died and 1—a voluntary patient—has been admitted. One gentleman, a voluntary patient, and another who is under certificate, have also been admitted during this period.

There are now in residence 32 ladies, of whom 7 are voluntary patients, and 7 gentlemen, of whom 3 are here on a voluntary basis. There are no temporary patients. Seven ladies and 2 gentlemen have enjoyed a holiday at Deal this summer.

Occupational treatment continues to make progress at Malling Place, and this morning I had the pleasure of seeing a mixed class of ladies and gentlemen engaged in various handicrafts. This department is well organised and conducted, and its value to the patients is fully realised.

Since the last visit Noelite paving has been laid down on the terrace in front of the house and croquet lawn and at the road entrance, and similar paving is now being laid down in the gentlemen's garden, while much redecoration has been done.



The house is comfortable and in first-rate order, and the decorations and furnishing are both very attractive. Sixteen patients (13 ladies and 3 gentlemen) go for drives, 13 (10 ladies and 3 gentlemen) enjoy walks, and 5 ladies and 1 gentleman attend church services. One gentleman and 2 ladies have parole.

The nursing staff comprises 6 nurses who are certificated, and 5 assistants, while there are 2 occupational therapists, both ladies.

In the absence of Dr. G. H. Adam on holiday, Dr. Gray has accompanied me throughout my visit and given me every assistance.

MIDDLETON HALL, MIDDLETON ST. GEORGE, CO. DURHAM.

*October 12th, 1937.*

Today I have paid the second visit of the year on behalf of my Board to this house. There are on the statutory books the names of 60 patients (20 men and 40 women) of whom 16 (8 of each sex) are voluntary patients. I have seen all these patients and have paid particular attention to those here since the last visit, excepting 2 under certificates who are away on leave.

Since the last visit 6 months ago the direct admissions have numbered 28 (12 men and 16 women); of these 17 came as voluntary and 3 as temporary patients. Within this period 11 patients have departed and 6 have been discharged, 6 of the latter and 5 of the former being stated as having recovered. Three patients have died, one of diabetes, one of exhaustion and the other from cirrhosis of the liver.

The patients, that is those whose mental condition allow, were happy and contented. One lady requested and was given a private interview.

The patients' rooms are comfortably furnished, clean and tidy. There is a good number of books and newspapers and for the time of the year, a plentiful supply of flowers and pot plants.

The patients' amusements and recreations are well catered for and include weekly drives and, for the more suitable type of patient, excursions to Darlington and its cinemas. All the patients were up and about at the time of my visit except four (two of each sex) who were being nursed in bed. All appeared to be receiving kindly care and treatment.

The nursing staff consists of 11 male and 14 female nurses.

The licence granted by the Durham General Quarter Sessions was not immediately available but is to be forwarded to me for endorsement.

I have to thank Dr. Barkas for his assistance throughout the course of my visit.

THE MOAT HOUSE, TAMWORTH.

*November 24th, 1937.*

Since the last visit of my colleague on 26th May, 1937, there have been no changes. I saw the only lady in residence and had a short interview. She is very happy and contented, and told me she was very comfortable and well looked after. She was looking forward to going out for her morning drive. The lady told me she enjoyed a recent visit from her sister.

The house was in very good order, and comfortably warm, it being a cold day when I called. The nursing staff remains the same as at last visit.

NORTHWOODS HOUSE, WINTERBOURNE, BRISTOL.

*November 17th, 1937.*

There is a considerable flow of patients through this comparatively small house. During the 8 months that have passed since my colleague's last visit no fewer than 34 patients have been admitted and 25 have been discharged. Of the admissions 23 were voluntary, 4 temporary and 7 were certified. In addition the status of 2 patients was changed from voluntary to certified.



The discharges were classified as follows, 17 voluntary, 5 temporary and 3 certified. During the period under review 6 patients have died, death in each case being due to natural causes. To-day there are 41 patients, 16 gentlemen and 25 ladies, in residence, all of whom I have seen in the course of my visit. With few exceptions the patients are elderly and therefore cannot be expected to be very active. Most of the patients have drives in the car each week. The younger patients who can co-operate attend occupation classes for two sessions weekly.

Recently many rooms on the ladies' side of the House have been re-decorated and I was glad to see the private rooms as well as several of the others had been made to look homely.

It was gratifying also to see so many fires lit at this early hour of the day.

Amongst other improvements effected recently is the repainting of the whole of the exterior of the main building and of the cottages and garages.

Also the road leading to the House has been re-made.

Dr. Cates kindly accompanied me through the wards and dormitories.

#### THE OLD MANOR, SALISBURY.

*October 15th, 1937.*

During yesterday and to-day I have visited all parts of this house and I believe I have seen all the patients in residence and spoken to everyone who was willing to converse. Eleven patients had private interviews, no action is called for in any case.

Since the last visit there have been 70 direct admissions. Fifteen gentlemen and 38 ladies were admitted on a voluntary basis; 1 of each sex came in as temporary patients and 3 gentlemen and 12 ladies were admitted under certificates. In addition 5 gentlemen and 11 ladies under certificates were admitted on transfer. I paid particular attention to all newly admitted patients and considered those under certificates rightly detained. I am reporting separately to my Board concerning certain of the voluntary and 1 of the temporary patients. In the period under review 9 gentlemen and 28 ladies left or were discharged and 6 of each sex were transferred to other care.

Thirty patients have died, death being due in every case, except 1, to natural causes. In the remaining case, the particulars of which have been reported fully to my Board, death followed a suicidal act and an inquest was held.

There have been two serious but non-fatal casualties involving fracture of bone. In each case the lady involved fell to the ground accidentally.

There are to-day the names of 649 patients—349 gentlemen and 300 ladies—on the books. Of these 15 gentlemen and 27 ladies are on leave or on trial at Hume Towers or elsewhere, so that there are actually in residence 607 patients.

The patients here are mostly kindly treated and seemed for the most part both happy and contented. I was interested to be present for a short while yesterday evening in the Entertainment Hall during a cinema performance. Sound and projection were alike very good. The patients were obviously enjoying the performance. This morning I visited the occupation rooms and workshops. I feel that the use of occupation therapy is advancing here in a satisfactory way.

The house is comfortable and well warmed. A certain amount of re-decorations and alterations has been recently executed or is in progress. I thought that some of the carpeting in the corridors of the gentlemen's side was in need of renewal.



An interesting development has taken place recently on the ladies' side. A small hairdressing saloon has been opened and a hairdresser comes in from the town whenever required. The room is well-equipped and should be very popular and indeed it may be found shortly to be too small for its purpose.

I visited the site for the new semi-convalescent villa for ladies yesterday. The building is well under way and when completed should prove a most useful adjunct to the hospital.

#### HUME TOWERS, BOURNEMOUTH.

*July 14th, 1937.*

This afternoon I have visited Hume Towers, Warren House, Leven House, The Cottage and the Lodges. There are 20 ladies and 12 gentlemen in residence under certificates, and 7 ladies and 4 gentlemen who are here as voluntary patients.

Thirteen ladies and 7 gentlemen were out this afternoon, the majority of them having gone to a picnic in the New Forest with the matron, Miss Popham.

The patients I have seen appear to be very well cared for.

One lady showed me a deformity of her left arm. On enquiry I find that she slipped and fell in the bathroom in December last, sustaining a fracture of the left humerus. There was no nurse present at the time, but I have no reason to doubt that the fall was accidental. An entry was made in the casualty book at the time by the medical officer.

The sitting-rooms and bedrooms are comfortably furnished, and nicely kept, and the various houses are in good order. Some re-decoration is being carried out at Warren House.

The nursing staff consists of the matron, assistant matron, 14 female nurses and 5 male nurses.

The general arrangements for the care and comfort of the patients appear to be excellent.

#### PERITEAU HOUSE, WINCHELSEA.

*November 15th, 1937.*

There are at present 4 ladies in residence, 2 voluntary patients, and 2 who are detained under certificate. Since the visit of my colleague and myself in February last 2 ladies, 1 of whom was a voluntary patient, have left, and 2 voluntary patients have been admitted. I am reporting to my Board in the case of one of the latter.

The house appears to be in good order. The patients are as contented as their mental conditions allow.

The statutory books are not being kept strictly in accordance with the requirements of the law, and I have asked Miss Brennan, who accompanied me throughout my visit and gave me every assistance, to see to the matter.

#### THE RETREAT, FAIRFORD, GLOS.

*November 17th, 1937.*

To-day there are 37 patients in residence here—11 on a voluntary basis and the remainder certified. Since my colleague's visit in June 10 patients have been admitted, but in one case only was the patient certified. During the same period 7 patients have been discharged, and 2 have died both from natural causes.

On this, my first visit to The Retreat, I was favourably impressed by the contented appearance and friendly manner of the patients. Several of the ladies were usefully occupied in sewing and in doing fancy needlework. All patients who can be active are encouraged to go for walks daily.



The sitting-rooms were well heated to-day, and I was glad to know that fires were placed in the larger dormitories during the winter months.

The bathing facilities on the ladies' side of the house are somewhat inadequate, and I would like to suggest that the nursing staff should be provided with a bath for their own use.

Dr. King-Turner kindly accompanied me throughout my visit, and I am grateful to him for facilitating my enquiries in every way.

ST. GEORGE'S RETREAT, BURGESS HILL, SUSSEX.

*December 31st, 1937.*

I have to-day seen the 72 patients in residence here, and 1 on leave in the convent infirmary. I was glad to see that 1 or 2 fit for it were out walking this afternoon, and that those able to take an interest in occupation were sewing or playing the piano, and that very many who are elderly or frail were in bed or resting with beautifully kept clothing, shawls, etc., and every comfort and care.

The light greenery used for Christmas decoration and the many flowering plants in the corridors add further brightness to the house. Those fit to appreciate their surroundings spoke gratefully of what is done for them. I saw and endorsed the licence granted in June of this year. Two private interviews were given. Doctor Todd whose knowledge of the patients and interest in old and modern methods of treatment is of obvious benefit to them, and the Reverend Mother who supervises a staff working with the greatest attention to the welfare of their charges, accompanied me during my visit.

ST. PETER'S CONVENT, PLYMPTON HOUSE, PLYMPTON.

*November 15th, 1937.*

Since the last visit of my colleagues 5 ladies have been admitted, 2 under certificate, and 3 on a voluntary basis, and 2 of these voluntary patients have departed, both having benefited by their stay here. These changes leave 17 ladies in residence, 2 of whom are voluntary patients.

I made a complete tour of the portion of the convent in which the patients live, and found it in excellent order everywhere. It was a cold day, but the rooms were comfortably warm, and I was pleased to see 10 of the ladies taking exercise in the garden, which has a tennis net, and a nice wooden shelter. Since my last visit there has been a slight alteration in the arrangements. Room No. 1 in the first floor is now a dormitory with 4 beds, this used to be the dining-room, which is now No. 9 on the ground floor, with the room next it, No. 10, used as a sitting-room. This change is a distinct improvement, and the patients like it.

I saw and spoke to all the ladies, and had no complaints except from 2 on account of detention, they appeared for the most part happy and contented, and several expressed their appreciation of the kindness and care they received from the Reverend Mother and the sisters.

Handicraft work, some of which was of a high standard, is done by the patients. Those able to do so are taken for frequent walks. I am satisfied that the patients are kindly treated and carefully supervised by the Reverend Mother and her staff of 4 sisters, one of whom holds the Certificate of the Royal Medico-Psychological Association.

I signed the licence, which was granted this year.



## SHAFTESBURY HOUSE, FORMBY.

*August 13th, 1937.*

To-day 10 gentlemen of whom 4 are voluntary and 6 are certified, are in residence, and there are 30 ladies, 9 of whom are voluntary and 21 are certified. Since the last visit 3 ladies, 1 a voluntary and 2 certified patients, have died from natural causes.

One lady has been secluded on two occasions for a total of  $3\frac{2}{3}$  hours.

I saw all the patients in residence and found them apparently comfortable and contented.

Two bathrooms on the ladies' side have recently been refloored and decorated, and certain other bedrooms have been repapered and painted.

The house and grounds are now in very good order. Since the last visit the quarters occupied by the nursing staff have been redecorated and largely refurnished. They are now attractive and comfortable.

The nursing staff on the ladies' side has been permanently increased by 1, and there is a relief nurse during the holiday season.

Miss Parncutt, the matron, accompanied me throughout my visit, and gave me every assistance. She is leaving shortly to take up an appointment at Peckham House, and I take this opportunity of wishing her every success in her new post.

## SPRINGFIELD HOUSE, BEDFORD.

*November 29th, 1937.*

There are in residence to-day 33 ladies and 13 gentlemen, all of whom I have seen. I had a short conversation with a number of these, and gave a private interview to 2.

Of the ladies 27 are detained under certificate and 6 on a voluntary basis; of the gentlemen 12 are certified, and 1 is a voluntary patient. I am satisfied that they are suitably detained in their respective categories.

Since the last visit 4 ladies were transferred elsewhere, and 1 was discharged; also 3 gentlemen were transferred and 2 were discharged. Admissions during the same period numbered 21, and of these 7 ladies and 2 gentlemen were admitted on a voluntary basis, 9 and 3 respectively under certificate, and 1 man was admitted under temporary certificate.

The nursing staff to-day numbers 17 female nurses and 7 male. One female nurse is on duty on the male side, and 3 are on duty at night, 1 of the male nurses is also on duty at night.

The structural alterations on the ladies' side involving reorganization of the scullery and lavatory arrangements is nearing completion. On the first floor above the present alterations corresponding structural modifications will provide improved lavatory and sanitary arrangements, but work on this scheme will not be undertaken immediately.

I have endorsed the licence granted in October for the ensuing year.

## STRETTON HOUSE, CHURCH STRETTON.

*September 27th, 1937.*

I have paid the second visit of the year to this house to-day. With the exception of 2 gentlemen who were out for the day, I have seen all the patients in residence. Since the last visit 15 have been admitted and 13 left. There are 20 names on the books to-day, and of these patients 14 are certified and 6 here on a voluntary footing. There have been no deaths.

I have asked Dr. Smith Allan to send a report in 2 months' time to my Board on the mental state of a voluntary patient who was admitted a few days ago. I have spoken to all the patients, who were willing to converse with me, and found them most contented.



A considerable amount of redecoration has been carried out throughout the House during recent months, and all the rooms I saw to-day were in capital order. The garden is well kept and most attractive. Tennis and bowls are played by a few patients. The staff consists of the matron, 1 female and 10 male nurses.

I have endorsed the licence renewed at the Salop Quarter Sessions on July 6th last.

#### TICEHURST HOUSE, TICEHURST.

*September 22nd, 1937.*

There are to-day 39 ladies and 28 gentlemen in residence, a total of 67. Eighteen others (10 being ladies) are away on leave or trial, making a total of 85 whose names are now on the statutory books. One lady was away for the day. Since the last visit 7 months ago, 2 ladies and 3 gentlemen have died, all from natural causes, their ages ranging from 55 to 87. An analysis of the 12 admissions is shown in the following table :—

Voluntary.		Temporary.		Certified.	
M.	F.	M.	F.	M.	F.
3	3	1	—	1	4

Of this number 5 patients have left and the temporary patient is on leave.

A report a month hence is requested on the mental condition of 1 of the voluntary patients on the ladies side if she is still in residence. The other new admissions appear to me to be appropriately placed in their respective status. Private interviews have been given to one lady and 1 gentleman.

Very few patients are at present confined to bed : a considerable proportion were to-day taking advantage of the fine weather to sit out of doors or to take exercise.

Much redecoration has been carried out since the last visit, and a rail has been erected on a roof serving as an emergency exit.

Quarry Villa is at present in the occupation of 1 gentleman. The gentleman, who resides at Broomden, is away on leave.

The nursing staff consists of 47 male and 80 women nurses, 4 of the latter being employed on the gentlemen's side. One nurse was dismissed recently, and the circumstances were reported to my Board.

I wish to record my appreciation of the arrangements made here for the comfort and care of the patients, and of the consideration given to their personal wishes and needs. The licence, issued since the last visit, has been endorsed by me.

#### WESTCLIFFE, ST. LEONARDS-ON-SEA.

*February 25th, 1937.*

There are to-day 5 ladies and 6 gentlemen in residence. One lady and 1 gentleman being voluntary patients, the remainder are under certificate.

I saw all the patients, and had conversation with them. All are comfortable, and in receipt of most kindly care and attention. The house is in excellent order, and very comfortable.

#### WYE HOUSE, BUXTON.

*October 21st, 1937.*

There are to-day in residence 7 gentlemen (1 voluntary, 2 temporary, and 4 certified patients), and 11 ladies (4 voluntary, 1 temporary, and 6 certified patients).



One lady is absent upon trial.

All the patients in residence appeared to be receiving adequate care and attention.

A certain amount of decoration has been done since our last visit, and the single bedrooms and small sitting-rooms are bright and comfortable.

The glass boxes containing keys to the fire escape doors on the female side are so fitted that the keys are not visible, and in one case at least the key was absent. This matter should receive attention.



## APPENDIX E.

## ENTRY BY COMMISSIONERS AT THE MAUDSLEY HOSPITAL

*(An institution maintained by the London County Council for the reception of voluntary patients.)*

18th May, 1937.

Since the last visit to this hospital on behalf of the Board, in December, 1936, when the extensive developments in the buildings, the re-organization of the staff, and other points brought forward by Professor Mapother in his report covering the years 1932 to 1935 were discussed, there has been no great change to report, though progress is proceeding on the lines then indicated.

We spent the day in the hospital, accompanied in the wards by Professor Mapother and in the laboratories, in the absence of Professor Golla, by Dr. Mann.

During 1936, there were 730 admissions for in-patient treatment. Those in residence to-day in the hospital, including Pantia Ralli Ward, are 213, of whom 86 are male and 127 female patients. The wards generally were in good order and the patients whom we saw and those to whom we spoke were comfortable and in our opinion very well cared for. Many are admitted with some degree of physical ill-health, but there has been no epidemic illness of importance among them; influenza, which attacked 23 members of the staff did not occur among the patients. Since last visit 4 patients have died, 2 from natural causes and 2 as the result of suicidal acts. One of these patients was absent on leave from the hospital at the time. The other died following the taking of corrosive poison (lysol) obtained outside the hospital, the verdict at the inquest recording that "no blame attaches to the hospital."

In discussing a number of cases with Professor Mapother and his staff we were impressed by the value of the team work done. The careful investigation of personal and family history and of recent circumstances of physical health, not only broadly but, where indicated, in detail as regards neurological disabilities, endocrine factors and metabolism generally, as well as of intelligence and psychological difficulties were evident during our visit. The availability of many facilities and the presence of a number of investigators trained along different lines being very much to the advantage of the patients.

In connection with the proposed new Children's Ward a playground is to be made on part of the hospital estate near the present hard tennis court. Apart from the obvious need to provide outdoor recreation for children treated here, there will be the advantage of having, in this playground, another place where the behaviour of the children and their abilities and difficulties in associating with each other can usefully be studied by those responsible for their care and treatment. Work of this kind is now carried on with the play-groups of children attending as out-patients.

Redecoration and renovation is being carried on in various parts of the hospital. In the Garden Villa rubber flooring is being laid down. Here, armour-plated glass in the partitions has proved to be satisfactory in use.

In the out-patient hall small tables are to be provided, which will add to its comfort. The mid-day meal which we saw in one of the wards was carefully and attractively served to those in bed. Another point about which we inquired was the personal laundry of the patients; a separate laundry book is kept for each patient and the clothing is sent out and laundered



at a small fixed weekly charge, so that there is no question of difficulty in keeping individual clothing.

In the Occupation Room, which we visited late in the morning, there were at the time only a few patients, but we understand that a considerable range of work is covered. Many of the patients in bed or sitting up in the wards were employed in sewing or knitting. The type of occupation recommended for each patient is prescribed by the medical officer on a card sent to the occupation department.

Out-patient work for adults and children continues on a very large scale, over 2,000 patients per annum attending. Facilities have been greatly improved since the excellent rooms in the extension became available. Evening appointments for treatment are made for those whose work prevents them from attending during the day; the ability to remain at work and to continue treatment without the necessity to arrange for time off for the purpose must be very valuable to recovering out-patients. Two additional psycho-therapists have recently taken up work in this department. We are told, and can readily understand, that there is scope for more part-time help of the same kind, in the wards.

The work of the Central Laboratory outlined in Professor Golla's report for 1935-36 and described, and, on some points, demonstrated to us during our visit, covers a very wide field.

Firstly, there is collaboration with, and supervision of, work in the laboratories of the other hospitals in the service, some of it of the nature of research and some particularly useful in its relation to the discovery, prevention and treatment of the various infectious illnesses which may arise in any large institution.

Secondly, there is clinical pathological work carried out here, either in the form of special investigations, such as Wassermann tests and cerebro-spinal fluid examinations for this and for the other hospitals, or as more general work for this hospital only. Of the latter we may mention the test for bromide intoxication carried out on newly admitted cases which shows according to Professor Mapother's 4-year report that "in a considerable proportion of patients a large part of the symptoms are due to over-dosage with bromides" before admission. Another line of clinical pathology now followed in a number of different branches, is the investigation of basal metabolism, following up work for which this hospital has been known for many years.

Finally there is research, which includes the investigation of a number of problems in the sphere of physiological psychology; of the special and therapeutic effects of drugs such as mexalin and benzedrine, of cerebral vascular and cellular pathology, and of the possibilities of the encephalogram in elucidating organic and functional disturbances of the brain. All of this work is interesting, some of it has already proved practically useful in assisting diagnosis and treatment, and some gives hope of considerable future advance.

The range of the activities of the hospital as a whole were outlined following last visit; some of these, such as nursing, teaching, and medical arrangements generally, remain much as then described.

One of the most striking features is the varied nationality, training and outlook of the many doctors attached to the various departments in one capacity or another. This makes the Maudsley Hospital a place where doctors seconded for work or studying for examinations can come into daily contact with new ideas and gives them an exceptional opportunity of acquiring breadth of knowledge not only of the technical side of their work but of the many ways in which it can be approached and handled, to the benefit of the patients here and in the hospitals to which they will return.

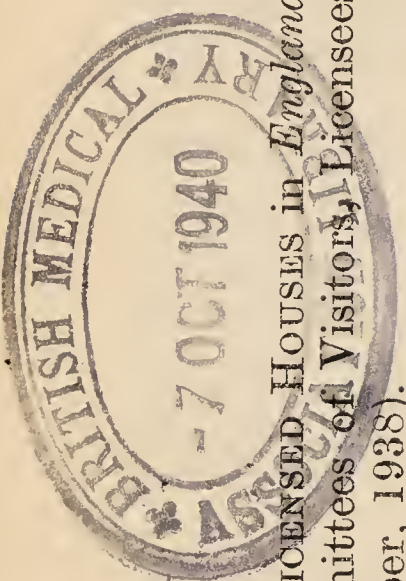


## APPENDIX F.

COUNTY and BOROUGH MENTAL HOSPITALS, REGISTERED HOSPITALS, and LICENSED HOUSES in England and Wales with the Names of the Medical Superintendents, and Clerks to Committees of Visitors, Licensees, Clerks to Visitors, and Medical Visitors, of Licensed Houses (Corrected to December, 1938).

## COUNTY AND BOROUGH MENTAL HOSPITALS.

COUNTIES, UNITED COUNTIES, AND BOROUGH.	WHERE SITUATE.	MEDICAL SUPERINTENDENTS.	CLERKS TO COMMITTEES OF VISITORS.
Beds, Herts, and Hunts ... Berks, Reading C.B., Newbury B., and New Windsor B. Brecon, Radnor, and Montgomery Bucks ... Cams, Isle of Ely, and Cambridge B. Carmarthen, Cardigan and Pembroke	Arlesey, Beds ... Moulsoford, Wallingford ... Talgarth, Breconshire ... Stone, Aylesbury ... Fulbourn, Cambridge ... Carmarthen ...	N. McDiarmid, M.B., D.P.M. H. Astley Cooper, M.D., M.R.C.P., D.P.M. P. Drummond, M.B. ... J. S. I. Skottowe, M.D., D.P.M. ... H. T. Jones, M.B., D.P.M. ... S. Davies, M.B., D.P.M. ...	S. G. Wilkinson, St. Neots. J. T. Morland, Bath Street, Abingdon. A. J. Astbury, The Mental Hospital. G. R. Crouch, County Hall, Aylesbury. W. M. Francis, 10, Peas Hill, Cambridge. W. J. Wallis-Jones, 34, Quay Street, Carmarthen.
Chester C., Birkenhead C.B., Stockport C.B. (part) and Wallasey C.B. " " " " " " Cornwall ... Cumberland, Westmorland and Carlisle C.B. Denbigh, Anglesey, Caernarvon, Flint, and Merioneth C. Derby C. ...	Upton, Chester ... Parkside, Macclesfield ... Bodmin ... Carlisle ... Denbigh ... Mickleover, Derby ...	G. H. Grills, M.D. ... H. D. Cormac, M.B., D.P.M. ... W. G. Rivers, M.B. ... J. T. H. Madill, M.B., F.R.F.P.S., D.P.M. F. G. Jones, M.D. ... E. L. Hopkins, M.C., L.R.C.P., D.P.M.	H. Potts, 21, King Street, Chester. G. W. Wain, 43, Church Side, Macclesfield. J. C. N. Kilner, Mount Folly, Bodmin. C. W. A. Hodgson, The Courts, Carlisle. W. Barker, M.B.E., The Mental Hospital. H. W. Skinner, County Offices, St. Mary's Gate, Derby.
Devon ... Dorset ... Durham C. and Darlington C.B. ...	Exminster ... Dorchester ... Winterton, Sedgfield, Stockton-on-Tees.	C. F. Bainbridge, M.B. ... P. W. P. Bedford, M.D., D.P.M. ... G. S. Wilson, M.B., D.P.M. ...	A. J. Withycombe, The Castle, Exeter. P. H. Morton, 51, High West Street, Dorchester. J. K. Hope, Shire Hall, Durham.





Essex and Colchester B.	...	Brentwood	...	W. G. Masfield, L.R.C.P., D.P.M. ...	H. H. Gepp, 66, Duke Street, Chelmsford.
" "	...	Severalls, Colchester	...	R. C. Turnbull, M.D. ...	Ditto
Glamorgan	...	Bridgend	...	D. R. Owen, M.B. ...	D. J. Parry, Glamorgan County Hall, Cardiff.
Gloucester C. and Gloucester C.B.	...	Gloucester	...	F. C. Logan, M.B. ...	C. C. Rodway, The Mental Hospital.
Hants, Bournemouth C.B. and Southampton C.B.	...	Knowle, Fareham	...	C. J. Thomas, L.R.C.P., D.P.M. ...	Lt.-Col. J. R. Wyatt,* O.B.E., The Mental Hospital.
" "	"	Park Prewett, Basingstoke	...	V. L. Connolly, M.C., M.B., D.P.M.	H. Spooner,* The Mental Hospital.
Hereford C. and Hereford B.	...	Burghill, Hereford	...	T. E. Burrows, L.R.C.P., D.P.M. ...	E. G. Abel, The Mental Hospital.
Herts	...	Hill End, St. Albans	...	W. J. T. Kimber, L.R.C.P., D.P.M.	P. E. Longmore, Clerk of the Peace, Hertford.
Kent and Gravesend B.	...	Barming Heath, Maidstone	...	A. C. Hancock, M.C., M.B., D.P.M.	P. Bracher,† Star House, Maidstone.
" "	...	Chartham, Canterbury	...	C. E. A. Shepherd, L.R.C.P., D.P.M.	J. G. Pembroke,† Burgate Street, Canterbury.
Lancaster C., all the County Boroughs and Stockport C.B. (part).	...	Lancaster Moor	...	J. D. Silverston, M.B. ...	Allan Sewart, 49, North Road, Lancaster.
" "	"	Rainhill, Lanes.	...	E. F. Reeve, M.B. ...	T. Garner, 49, Corporation Street, St. Helens.
" "	"	Prestwich, Manchester	...	J. Gifford, M.B., D.P.M. ...	Sir Geo. Etherton,‡ County Offices, Preston.
" "	"	Whittingham, Preston	...	A. R. Grant, M.D. ...	L. Cotman, 8, Lane Street, Preston.
" "	"	Winwick, Warrington	...	J. E. Nicole, L.M.S.S.A., D.P.M. ...	F. W. Uncles, The Mental Hospital.
Leicester C. and Rutland	...	Narborough, Leicester	...	K. K. Drury, M.C., M.D., D.P.M. ...	C. E. J. Freer, 10, New Street, Leicester.
Lincoln (Lindsey and Holland), Grimsby C.B. and Lincoln C.B.	...	Bracebridge, Lincoln	...	J. Macarthur, L.R.C.P., D.P.M. ...	H. E. Page, Bank Street, Lincoln.
Lincoln (Kesteven) and Grantham B.	...	Rauceby, Sleaford	...	N. K. Henderson, M.B., D.P.M., LL.B.	W. T. Phipps, County Offices, Sleaford.
London C.	...	Banstead Downs, Sutton	...	A. A. W. Petrie, M.D., F.R.C.P., F.R.C.S.E., D.P.M.	R. H. Curtis, Chief Officer, Mental Hospitals Dept., Shell-Mex House, Strand, W.C.2.
"	...	Bexley, Kent	...	Geoffrey Clarke, M.D. ...	Ditto
"	...	Cane Hill, Coulsdon, Surrey	...	G. A. Lilly, M.C., M.D., D.P.M. ...	Ditto
"	...	Claybury, Woodford	...	J. S. Harris, M.D., M.R.C.P., D.P.M.	Ditto
"	...	Bridge, Woodford Green.	...	John Brander, M.D., M.R.C.P., D.P.M.	Ditto
"	...	Friern, New Southgate, N.11.	...		

\* Clerks to the respective Committees. Clerk to the Hampshire Joint Committee: F. V. Barber, The Castle, Winchester.

† Clerks to the respective Sub-Committees. Clerk to the Kent Mental Hospitals Committee: W. L. Platts, Sessions House, Maidstone.

‡ Also Clerk to the Lancashire Mental Hospitals Board.



COUNTY AND BOROUGH MENTAL HOSPITALS—*continued.*

COUNTIES, UNITED COUNTIES, AND BOROUGH.	WHERE SITUATE.	MEDICAL SUPERINTENDENTS.	CLERKS TO COMMITTEES OF VISITORS.
London C.— <i>cont.</i>	Ewell, Epsom ...	L. H. Wootton, M.C., M.B., D.P.M.	R. H. Curtis, Chief Officer, Mental Hospitals Dept., Shell-Mex House, Strand, W.C.2— <i>cont.</i>
"	Southall, Middlesex ...	J. B. S. Lewis, M.D., D.P.M.	Ditto ditto.
"	Horton, Epsom ...	W. D. Nicol, M.B., F.R.C.P., D.P.M.	Ditto ditto.
"	Long Grove, Epsom ...	F. G. L. Barnes, M.B., D.P.M.	Ditto ditto.
"	West Park, Epsom ...	N. Roberts, O.B.E., M.D., D.P.M.	Ditto ditto.
Middlesex	Springfield, Beechcroft Road, Tooting, S.W.17.	Reginald Worth, O.B.E., M.B.	H. S. Freeman, § Clarence Street, Staines.
"	Napsbury, St. Albans ...	A. O'Neill, O.B.E., L.R.C.P.	C. W. Radcliffe, § Guildhall, Westminster, S.W.1
"	Shenley, St. Albans ...	G. W. Shore, O.B.E., M.D., D.P.M.	Ditto ditto.
Monmouth	Abergavenny ...	N. R. Phillips, M.D.	A. F. T. Stewart, The Mental Hospital.
Norfolk	Thorpe, Norwich ...	O. G. Connell, M.C., L.R.C.P.	J. Middleton, M.B.E., The Mental Hospital.
Northampton C.	Berrywood, Northampton ...	E. D. T. Hayes, M.D., D.P.M.	A. H. James, The Mental Hospital.
Northumberland and Tynemouth C.B.	Cottingham, Morpeth ...	G. R. East, M.D.	C. H. Carter, The County Hall, Newcastle- upon-Tyne.
Notts C.	Radcliffe-on-Trent, Not- tingham.	H. C. Waldo, L.R.C.P.	A. V. Simpson, The Mental Hospital.
Oxford C. and Oxford C.B.	Littlemore, Oxford ...	R. W. Armstrong, M.D., D.P.M.	F. G. Scott, County Hall, Oxford.
Salop, Shrewsbury B., and Wenlock B.	Bicton, Shrewsbury ...	W. S. Hughes, M.B.	W. L. Edge, Shirehall, Shrewsbury.
Somerset and Bath C.B.	Wells ...	J. McGarvey, M.B., D.P.M.	J. H. Coates,* The Mental Hospital.
"	Cotford, Norton Fitz- warren, Taunton.	W. S. Graham, M.B.	A. W. Caley,* The Mental Hospital.
Stafford C., and all the County Boroughs	Stafford ...	T. P. Curran, M.D., D.P.M.	H. L. Underwood, j County Buildings, Stafford.
"	Burntwood, Lichfield ...	W. Reid, M.B.	Ditto ditto.
"	Cheddleton, Leek ...	W. D. Wilkins, M.B.	Ditto ditto.
Suffolk (East and West)	Melton, Woodbridge ...	W. B. Keith, M.C., M.D.	C. Oakes, O.B.E., County Hall, Ipswich.
Surrey and Guildford B.	Brookwood, Woking ...	James A. Lowry, M.D.	D. Aukland, County Hall, Kingston-on- Thames.
Surrey	Netherne, Coulsdon, Surrey	L. M. Webber, L.R.C.P., D.P.M.	Ditto ditto.
Sussex (East)	Hellingly, Hailsham, Sussex.	B. Reid, M.D., M.R.C.P., D.P.M.	Harold M. Blaker, 211, High Street, Lewes.



Sussex (West)	...	...	Chichester...	...	J. Carse, M.D., D.P.M.	...	G. H. B. Peters, 9, West Pallant, Chichester.
Warwick C., Coventry	...	C.B., and	Hatton, Warwick	...	D. N. Parfitt, M.D., D.P.M....	...	H. W. Blenkinsop, 1, New Street, Warwick.
Warwick B.	...	...	Whitecroft, Newport,	...	C. W. S. Davies-Jones, M.B.	...	R. S. Curry, The Mental Hospital.
Wight, Isle of	...	...	I. of W.	...	J. W. Lecch, M.D., D.P.M.	...	G. W. Jackson, Devizes.
Wilts	...	...	Devizes ...	...	H. F. Fenton, M.B.	...	J. L. Wood, Bank Buildings, Cross, Worcester.
Worcester C., Dudley	...	C.B. and	Powick, Worcester	...	A. Shepherd, M.B., D.P.M.	...	C. H. Bird, Shirehall, Worcester
Worcester C.B.	...	...	Barnsley Hall, near Brooms-	...	T. M. Davie, M.C., M.D., D.P.M.	...	Sir Godfrey Macdonald, Bt., County Hall, Beverley.
Worcester C.	...	...	grove.	...	J. I. Russell, M.B., F.R.F.P.S., D.P.M.	...	Major H. H. Dryland, M.B.E., The Mental Hospital.
York, E. Riding	...	...	Beverley ...	...	R. C. Walker, M.D.	...	} G. L. Banner, A.S.A.A., Clerk to W.R. Mental Hospitals Board, Victoria Chambers, Wood Street, Wakefield.
"	...	...	Clifton, York	...	R. S. Kennedy, M.B., D.P.M.	...	
"	...	...	Menston, Leeds	...	M. J. McGrath, M.B., D.P.M.	...	
W. Riding, and (except for	...	...	Wadsley, Sheffield	...	D. K. Bruce, M.B., D.P.M....	...	
Scalebor Park) Barnsley,	...	...	Wakefield	...	J. R. Gilmour, M.B., F.R.C.P.E.	...	Sir Charles McGrath, County Hall, Wakefield.
Bradford, Dewsbury,	...	...	Storches Hall, Kirkburton,	...	J. J. McC. O'Reilly	...	Sir Frank Wiltshire, Council House, Birmingham.
Doncaster, Halifax,	...	...	Huddersfield.	...	T. C. Graves, M.D., F.R.C.S.†	...	
Huddersfield, Leeds,	...	...	Scalebor Park, Burley-in-	...	W. McCartan, M.D., M.R.C.P., D.P.M.	...	J. G. Drew, Town Hall, Brighton. J. Green, The Council House, Bristol. G. W. Marks, Town Hall, Canterbury.
Rotherham, Sheffield	...	...	Wharfedale.	...	J. J. B. Martin, M.D., F.R.C.P., D.P.M.	...	
and Wakefield C.B.	...	...		...	F. L. Scott, L.R.C.P., D.P.M.	...	
BOROUGH.	...	...		...	T. J. Hennelly, M.D., D.P.M.	...	P. K. Rees, The City Hall, Cardiff.
Birmingham	...	...	Winson Green, Birmingham	...		...	
"	...	...	Rubery Hill, near Birmingham-	...		...	
	...	...	ham.	...		...	
Brighton	...	...	Haywards Heath, Sussex	...		...	
Bristol	...	...	Fisbponds, Bristol	...		...	
Canterbury	...	...	St. Martin's Hill, Canter-	...		...	
	...	...	bury.	...		...	
Cardiff	...	...	Whitchurch. Glamorgan...	...		...	

\* Clerks to the respective Sub-Committees. Clerk to Somerset and Bath Mental Hospitals Committee : A. W. Caley.  
† Also Clerk to the Staffordshire Mental Hospitals Board.  
‡ Also Medical Director of the Birmingham Mental Hospital, which comprises Winson Green Division and Rubery Hill with Hollymoor Division.  
§ Clerks to the respective Sub-Committees. Clerk to the Middlesex Mental Hospitals Committee : H. S. Freeman.  
|| For private patients only.



## COUNTY AND BOROUGH MENTAL HOSPITALS—continued.

COUNTIES, UNITED COUNTIES, AND BOROUGH.	WHERE SITUATE.	MEDICAL SUPERINTENDENTS.	CLERKS TO COMMITTEES OF VISITORS.
Croydon	Warlingham, Whyteleafe, Surrey.	T. P. Rees, M.D., M.R.C.P., D.P.M....	E. Taberner, Town Hall, Croydon.
Derby	Rowditch, Derby	John Bain, M.B. ...	C. T. Ashton, Town Hall, Derby.
East Ham and Southend-on-Sea...	Runwell, Wickford, Essex	R. Ström-Olsen, M.D., D.P.M. ...	H. J. Worwood, Town Hall, Southend-on-Sea.
Exeter	Digbys, Topsham	D. McK. Reid, M.D., F.R.F.P.S. ...	C. J. Newman, Town Clerk's Office, Exeter.
Gateshead	Stannington, Newcastle- upon-Tyne.	C. B. Bamford, M.D., M.B.C.P., D.P.M.	J. W. Porter, Town Hall, Gateshead.
Hull	De la Pole, Willerby, Hull	J. MacInnes, M.B., D.P.M. ...	A. Pickard, Guildhall, Hull.
Ipswich	Ipswich ...	P. Bambury, L.R.C.P., D.P.M. ...	A. Moffat, Town Hall, Ipswich.
Leicester	Humberstone, Leicester ...	T. W. Davidson, M.B., D.P.M. ...	H. A. Pritchard, Town Hall, Leicester.
London (City of)	Stone, Dartford	W. Robinson, M.D., D.P.M. ...	L. T. Feldon, 5, Church Passage, Guildhall, E.C.2.
Middlesbrough	Cleveland, Middlesbrough	H. G. Drake-Brockman, L.R.C.P. ...	Preston Kitchen, Town Clerk's Office, Middles- brough.
Newcastle-upon-Tyne	Gosforth, Newcastle-upon- Tyne.	H. D. MacPhail, O.B.E., M.D. ...	Town Clerk's Office, Newcastle-upon-Tyne, 1.
Newport	Caerleon, Mon. ...	M. R. Mackay, M.C., M.B. ...	O. T. Morgan, Town Clerk's Office, Newport, Mon.
Norwich	Hellesdon, Norwich	F. H. Healey, M.D., D.P.M. ...	B. D. Storey, Guildhall, Norwich.
Nottingham	Mapperley Hill, Notting- ham.	G. Ll. Brunton, M.D. ...	J. E. Richards, Guildhall, Nottingham.
Plymouth	Blackadon, Ivybridge	E. G. T. Poynder, L.R.C.P., D.P.M.	C. Campbell, Town Clerk's Office, Plymouth.
Portsmouth	Milton, Portsmouth	T. Beaton, O.B.E., M.D., F.R.C.P. ...	F. J. Sparks, Guildhall, Portsmouth.
Sunderland	Ryhope, Sunderland	F. Back, M.B., B.S., D.P.M. ...	G. S. McIntire, L.L.B., Town Hall, Sunderland.
Swansea	Cefn Coed, Swansea	N. Moulson, M.D., D.P.M. ...	H. L. Lang-Coath, The Guildhall, Swansea.
West Ham	Goodmayes, Ilford, Essex	G. Somerville, M.D., D.P.M. ...	C. E. Cranfield, Town Hall, West Ham, E.15.
York	Fulford, York	R. A. Hooper, M.B. ...	R. Anderson, Guildhall, York.



## HOSPITALS.

COUNTY.	REGISTERED HOSPITALS.	MEDICAL SUPERINTENDENTS.
Chester ... ..	Manchester Royal Hospital, Cheadle.	J. A. C. Roy, M.B.
Devon ... ..	Wonford House, Exeter ...	
Gloucester ... ..	Barnwood House, Gloucester...	G. W. T. H. Fleming, L.R.C.P., D.P.M.
Kent ... ..	*Bethlem Royal Hospital, Eden Park, Beckenham.	J. G. Porter Phillips, M.D., F.R.C.P.
Lincoln ... ..	The Lawn, Lincoln ... ..	Myra Mackenzie, M.B.
Norfolk ... ..	Bethel Hospital, Norwich ...	S. J. Fielding, M.B.
Northampton ... ..	St. Andrew's Hospital, Northampton.	T. Tennent, M.D., M.R.C.P., D.P.M.
Notts ... ..	The Coppice, Nottingham ...	D. Hunter, M.B.
Oxford ... ..	The Warneford, Headington Hill, Oxford.	R. G. McInnes, M.R.C.P., D.P.M.
Stafford ... ..	Coton Hill Hospital, Stafford ...	R. Macdonald, O.B.E., M.D., D.P.M.
Surrey ... ..	Holloway Sanatorium, St. Ann's Heath, Virginia Water.	T. E. Harper, L.R.C.P.
York City (N.R.) ...	Bootham Park, York ... ..	D. Robertson, M.D., D.P.M.
„ „ (E.R.) ...	The Retreat, York ... ..	A. Pool, M.B., M.R.C.P., D.P.M.
NAVAL AND MILITARY HOSPITALS		
Hants ... ..	Royal Military Hospital, Netley, Southampton.	Lt.-Col. H. Gall, L.R.C.P.
Norfolk ... ..	Royal Naval Hospital, Gt. Yarmouth.	Surgeon-Capt. C. M. R. Thatcher, R.N., M.B.
CRIMINAL ASYLUM		
Berks ... ..	State Criminal Asylum, Broadmoor, Crowthorne.	J. S. Hopwood, M.B.

\* Registered for 109 males and 141 females.



METROPOLITAN LICENSED HOUSES.

HOUSES.		Number of Patients for which Licensed.			TO WHOM LICENSED.
		M.	F.	Total.	
For both Sexes					
Camberwell, S.E.5	...	*†Camberwell House, Peckham Road...	...	Not more than 140   300   420	Colonel R. H. W. Cardiff, Captain J. A. E. Drury-Lowe, and H. J. Norman, M.B., D.P.H.
Clapton, Upper, E.5	...	*†Brooke House	...	Not more than 21   61   80	Miss E. D. Monro, E. E. Rollins, M.B., and Mrs. E. E. Holmes.
Finsbury Park, N.4	...	*†Northumberland House	...	Not more than 42   68   95	A. H. Stocker, H. G. Stocker, R. H. Stocker, and F. Dillon, M.D.
Hayes, Middlesex	...	*Hayes Park	...	Not more than 2   19   19	J. S. Lloyd, F.R.C.S.E., and H. C. A. T. Cannon, L.R.C.P.
Hillingdon, Uxbridge	...	*†Moorcroft House (and Laurel Lodge)	...	Not more than 48   10   48	R. J. Stilwell, L.R.C.P., and G. W. B. James, M.C., M.D. D.P.M.
Isleworth	...	*†Wyke House	...	25   20   45	G. W. Smith, O.B.E., M.B., and Mrs. S. R. M. Smith, M.B.
Peckham, S.E.15	...	*†Peckham House	...	Not more than 105   265   360(a)	A. H. Stocker, H. G. Stocker, R. H. Stocker, and F. R. King, L.R.C.P.
Pinner, Middlesex	...	*†Chiswick House	...	Not more than 14   23   35	P. Morris, L.R.C.P., D. I. O. Macaulay, M.D., D.P.M., and Miss J. Wadsworth.
Rochampton, S.W.15	...	*†The Priory	...	Not more than 47   52   90	G. B. Postlethwaite, B. W. Brown, M.B., D.P.M., and H. S. Bristowe.
Shepperton	...	*†Halliford House	...	Not more than 15   17   30	Lt.-Col. H. Dickenson, N. Dickenson, Sir William Haslett, L.R.C.P., Mrs. Jane Williams, R. A. Stewart, M.B., and Mrs. E. Sharpe.



Tooting Common, S.W.17	*†Newlands House, Tooting Bec Road	Not more than 21   22   28	J. N. Sergeant, M.B., Miss M. F. Simms-Reeve, Miss E. Reid, and Mrs. T. I. M. Garnham.
Males only Beckenham Lane, Catford, S.E.6.	†The Flower House ...	32   —   32	T. Waterhouse, M.B., Mrs. Enid a'Beckett, B. S. Cave-Chinn, and C. R. Menzies
Females only Clapham Park, S.W.4 ...	*Clarence Lodge, Clarence Road ...	—   12   q. 12	J. A. Thwaites, Miss L. E. Thwaites, and Mrs. L. A. Sparkes.
Staines, Middlesex ...	*Jamnagar House, Penton Road ...	—   14   14	R. M. Macfarlane, M.B., D.P.M.
Hayes, Uxbridge ...	*Mead House ...	—   14   14	R. J. Stilwell, L.R.C.P., J. S. Lloyd, F.R.C.S.E., H. C. A. T. Cannon, L.R.C.P., and Miss S. A. Davies.
” ...	Wood End House ...	—   19   19	R. J. Stilwell, L.R.C.P., Miss M. Mackay, and G. W. B. James, M.C., M.D., D.P.M.
Streatham Hill, S.W.2 ...	*Fenstanton, Christchurch Road ...	—   30   30	Mrs. H. White, Miss M. R. Lockwood, L.R.C.P., D.P.M., and R. C. Humphrey.
Sydenham, S.E.26 ...	*Otto House, 44, Sydenham Hill ...	—   30   30	Capt. F. H. Little, Miss T. J. Alexander, and Mrs. M. A. H. Little.
Forest Hill, S.E.23 ...	*Featherstone Lodge, Eliot Bank ...	—   10   10	W. L. Bailey, Mrs. V. Bailey, and Miss M. Cronin.

\* Approved under Sec. 5 of the Mental Treatment Act, 1930, for the reception of Female Temporary Patients.

† Approved under Sec. 5 of the Mental Treatment Act, 1930, for the reception of Male Temporary Patients.

(a) Of whom 65 may be rate-aided patients : not more than 30 males and 45 females.  
q. Limited to quiet and harmless cases.



## PROVINCIAL LICENSED HOUSES.

COUNTY.	HOUSES.	TO WHOM LICENSED.	Number of Patients for which Licensed.			CLERK TO VISITORS.	MEDICAL VISITORS.
			M.	F.	T.		
Beds [Bedford Borough]	Bishopstone House, Bedford.	J. L. Macaulay, L.R.C.P. & S., Miss M. Macaulay, Miss M. Watts, and Mrs. M. Roff.	—	10	10	G. J. M. Whyley, Bedford.	H. M. Coombs, M.B.
Beds ...	*†Springfield House, Bedford.	C. W. Bower, L.M.S.S.A., Mrs. M. A. E. Bower, and Miss J. W. Kerr.	Not more than 24	37	48	J. B. Graham, ditto	E. C. Sharpin, L.R.C.P.
Derby ...	*†Wye House, Buxton ...	F. H. Dickson, M.B., and Miss H. S. E. Murray, M.B.	22	22	44	G. G. Baily, County Offices, Derby.	W. Shipton, M.D.
Devon ...	*Court Hall, Kenton, Exeter.	Miss B. M. Mules, M.D., Miss A. S. Mules, L.R.C.P., and Miss W. A. S. Mules.	—	8	8	F. A. Pearce, Exeter	L. P. Black, M.B., D.P.H.
" ...	*St. Peter's Convent, Plympton House, Plympton.	Miss A. Keane, Miss C. Carroll, Miss K. Carroll, and Miss W. Collins.	—	44	44	R. B. Johns, Plymouth	E. L. Fox, M.D.
Durham ...	*†Middleton Hall, Middleton St. George.	R. H. O. Garbutt, L.R.C.P., and T. C. Barkas, O.B.E., M.B.	21	44	65	G. H. Watson, Darlington.	T. Beattie, M.D., F.R.C.P.
Essex ...	*Littleton Hall, Shenfield, Brentwood.	Miss M. G. E. Wilson, H. G. L. Haynes, L.R.C.P., and Mrs. M. Haynes.	—	25	25	E. S. Holcroft, Shire Hall, Chelmsford.	R. W. Quennell, O.B.E., L.R.C.P.
Gloucester ...	*†Northwoods, Winterbourne, Bristol.	H. J. Cates, M.D., Mrs. R. Cates, J. E. Cates, and Miss R. Cates.	Not more than 35	35	50	L. M. Harris, 65, Stokes Croft, Bristol.	{ J. R. Charles, M.D., F.R.C.P. P. L. Moore, M.B.



Gloucester ...	*The Retreat, Fairfield...	A. C. King-Turner, M.B., C. J. King-Turner, L.R.C.P., and Mrs. H. E. King-Turner.	—	—	(a) 50	Robert W. Ellett, Cirencester.	D. G. Cossam, M.B.
Kent ...	*†Malling Place, West Malling, Kent.	G. H. Adam, L.R.C.P., H. Gray, L.R.C.P., Mrs. Irene Adam, and Mrs. N. R. Atkinson.	18	21	(b) 39	D. B. H. Warner, Tonbridge.	{ W. M. Ramsden, M.D. Hy. A. Andrews, L.R.C.P.
Lancaster ...	*†Haydock Lodge, Newton-le-Willows.	C. T. Street, L.R.C.P., Mrs. Mabel R. Street, J. C. Wootton, M.C., L.R.C.P., Mrs. M. Wootton, and G. C. Cross, L.R.C.P.	Not more than 80	90	150	H. Hatton, Warrington	H. Langdale, M.D.
" ...	*Shaftesbury House, Formby, Liverpool.	Miss J. E. H. Gill, Mrs. E. M. Gill, and John W. Jones.	Not more than 10	40	40	G. W. Swift, 74, Hanover St., Liverpool.	H. Langdale, M.D.
Norfolk [Norwich City]	*†Heigham Hall, Norwich.	J. A. Small, M.B., Mrs. D. K. Small, L.R.C.P. & S.I., Miss E. E. Moore, A. Jenkins and Miss K. M. Sutton.	40	75	95	J. F. Betts, Norwich	H. J. Starling, M.D.
" ...	*The Grove, Catton Grove Road, Norwich.	Miss H. M. McLintock, J. A. McLintock, and Mrs. S. H. Steward.	—	21	21		
Shropshire ...	†Stretton House, Church Stretton.	W. S. Allan, M.B., S. T. H. Lane, and Miss M. Loader.	40	—	40	W. L. Edge, Shirehall, Shrewsbury.	H. W. Gardner, M.B.E., M.D., F.R.C.P.
" ...	*Grove House, All Stretton.	J. McClintock, L.R.C.P., Mrs. F. E. G. McClintock, J. A. McClintock, L.M.S.A., Mrs. G. M. Lane, and Miss G. H. McClintock.	—	40	40		

\* Approved under Sec. 5 of the Mental Treatment Act, 1930, for the reception of Female Temporary Patients.

† Approved under Sec. 5 of the Mental Treatment Act, 1930, for the reception of Male Temporary Patients.

(a) Not more than 25 males. (b) Proportion of sexes may be varied. (c) Of whom 20 may be rate-aided patients.

(d) Of whom 25 may be rate-aided patients.



PROVINCIAL LICENSED HOUSES—*continued.*

COUNTY.	HOUSES.	TO WHOM LICENSED.	Number of Patients for which Licensed.			CLERK TO VISITORS.	MEDICAL VISITORS.
			M.	F.	T.		
Somerset ...	*Bailbrook House, Bath-easton.	J. R. Benson, F.R.C.S., E. M. Wright, and A. Guirham, D.M., D.P.M.	Not more than 16	36	44	C. E. Newman, County Hall, Taunton.	R. E. Moorhead, L.R.C.P., J. R. Charles, M.D., J. Wallace, O.B.E., M.B., John Allen, M.B., and W. H. Maidlow, M.D.
" (Bristol City)	*†Brislington House, Bristol.	Mrs. A. Fox, J. M. Rutherford, M.B., and F. E. Fox, L.R.C.P.	36	70	106	S. Young, Petty Sessional Court House, Bristol.	Annie F. M. Cornall, F.R.C.S.I., W. H. Cory, M.R.C.S., and Colston Wintle, L.R.C.P.
Stafford ...	Ashwood House, Kings-winsford, Dudley.	W. A. O'Connor, L.M.S.S.A. ...	11	20	31	H. L. Underwood, County Buildings, Stafford.	C. Reid, O.B.E., M.B.
"	Moat House, Tamworth	W. Lowson, M.B., Mrs. M. R. Lowson and Miss H. Billings.	—	16	16	Ditto ditto	Ditto.
Sussex, East	*†Ticehurst House, Ticehurst, Tunbridge Wells.	C. F. F. McDowall, M.D., H. A. H. Newington, D. H. Cooper, H. McMahon, and R. M. Tuke.	41	51	92	H. S. Martin, County Hall, Lewes.	J. W. McK. Nicholl, M.D.
"	*St. George's Retreat, Burgess Hill.	Miss Ward, Miss McEvoy, Miss A. Keane, and Miss Collins.	—	75	75	Ditto ditto	Ditto.
"	Periteau House, Winchelsea, Sussex.	H. Baird, M.D., and Miss G. Brennan.	—	5	5	Ditto ditto	Ditto.
" [Hastings Borough]	Ashbrook Hall, Hollington	Charles E. H. Somerset and Miss J. P. Bertram.	—	q. 6	6	F. G. Langham, Palace Chambers, White Rock, Hastings.	E. M. Barker, M.B.



Warwick ...	*Glendossill, Henley - in - Arden.	W. Agar, L.R.C.P., and Mrs. Mary D. Agar.	14	33	40	R. H. Sutcliffe, 1, New Street, Warwick.	W. R. W. Asplen, M.D.
Wilts [New Sarum City]	*†The Old Manor, Salisbury.	W. Swords, K.C., S. E. Martin, M.B., and P. W. Carruthers, M.B.	—	—	672	A. C. Jonas, Salisbury	E. T. Eison, O.B.E., M.D., F.R.C.S., and R. C. Monnington, M.D.
Wilts ...	*†Laverstock House, Salisbury.	H. Hill, M.D., E. S. Caley, Mrs. E. C. Hill, and Miss P. Deane.	Not more than 50	more than 50	70	W. L. Bown, Trowbridge	A. W. K. Straton, L.R.C.P.
" ...	*†Fiddington House, Market Lavington, Devizes.	J. R. Benson, F.R.C.S., Mrs. May Benson, and G. E. M. Benson, B.M.	Not more than 25	more than 25	30	Ditto	G. S. A. Waylen, L.R.C.P.
" ...	Kingsdown House, Box	G. T. M. MacBryan and C. A. Stone, M.B.	Not more than 13	more than 43	43	Ditto	A. D. Hamilton, M.D.
" [Rotherham Borough]	*The Grange, Kimberworth, Rotherham.	G. E. Mould, L.R.C.P., and Mrs. B. L. Mould.	—	20	20	C. L. des Forges, Rotherham.	W. Barr, M.D.

\* Approved under Sec. 5 of the Mental Treatment Act, 1930, for the reception of Female Temporary Patients.  
† Approved under Sec. 5 of the Mental Treatment Act, 1930, for the reception of Male Temporary Patients.  
q. Limited to quiet and harmless cases.

APPENDIX G.

INSTITUTION PROVIDED BY A LOCAL AUTHORITY FOR VOLUNTARY PATIENTS ONLY.

Name of Institution.	Address.	Medical Superintendent.	Owning Authority.
The Maudsley Hospital ...	Denmark Hill, London, S.E.5 ...	E. Mapother, M.D., F.R.C.S., F.R.C.P.	London County Council.



APPENDIX H.

INSTITUTION PROVIDED BY A LOCAL AUTHORITY UNDER SECTION 6(4) OF THE MENTAL TREATMENT ACT, 1930.

Name of Institution.	Address.	Person in charge.	Owning Authority.
Weston Lodge ... ..	Upper Weston, Bath ... ..	Miss M. E. Goodson ... ..	Bath County Borough Council.

APPENDIX J.

HOSPITALS APPROVED FOR THE RECEPTION OF VOLUNTARY AND TEMPORARY PATIENTS.

Name of Hospital.	Address.	Number of Patients for which approved.			Person in Charge.
		M.	F.	T.	
Hull Royal Infirmary* St. John's Hospital	Hull. Morden Hill, Lewisham, S.E.13.	— 1	— 1	— 2	J. S. Anderson, L.R.C.P. J. C. Gilbert.



# APPENDIX K.

## NURSING HOMES APPROVED FOR THE RECEPTION OF VOLUNTARY AND TEMPORARY PATIENTS.

Name of Nursing Home.	Address.	Number of Patients for which approved.			Name of Proprietor.
		M.	F.	T.	
Manor House...	Riverhead, Sevenoaks.	—	6	6*	Mrs. M. L. Macartney.
†The Red House	Riverhead, Sevenoaks.	—	4	4*	Mrs. M. L. Macartney.
Tykeford Abbey	Newport Pagnell, Bucks.	—	6	6	D. E. M. Douglas-Morris, L.M.S.S.A.
Dorset House	Clifton Down, Bristol.	—	—	30†	Miss E. Casson, M.D., D.P.M.
The Hall ...	Harrow Weald, Middlesex.	—	—	2	E. Lincoln Williams, L.R.C.P.
Boughton Hall	Chester.	—	8	8	C. J. Tisdall, M.D.
Arthington	Barton Road, Torquay.	—	—	12	Messrs. Arthington, Ltd.
42, Ashburnham Road	Bedford.	—	9	9	J. L. Macaulay, L.R.C.S.
Eyhurst Court	Kingswood, Surrey.	27	31	35	Eyhurst Court, Ltd.
Grantbourne	Chobham, Surrey	—	—	3*	C. H. Caldicott, M.B., and W. M. K. McLellan, M.B.
Kearsney Court	Kearsney, Dover.	5	5	10*	Messrs. A. H. and H. G. Stocker.
Verecroft ...	Sanderstead Road, Sanderstead, Surrey.	—	3	3*	Mrs. E. Davies.
The Ridgeway	Wallerough, Tunbridge Wells.	—	7	7	Doctors Newington.
St. Joseph's ...	Ditchling Common, Burgess Hill, Sussex.	—	21	21*	The Sisters of St. Augustine.
Russells ...	Hempstead Road, Watford.	6	10	16	D. I. O. Macaulay, M.D., D.P.M.
Weir Cottage	Bridge Road, Chertsey	—	—	3*	J. N. Glaister, M.B.

\* Voluntary only.

† Not more than 5 male patients and not more than 7 temporary patients.

‡ Ancillary to Manor House.



APPENDIX L.

STATE AND CERTIFIED INSTITUTIONS, CERTIFIED HOUSES, and APPROVED HOMES, under the MENTAL DEFICIENCY ACTS, 1913-1938, with the names of Managers or Owners and the number and class of Patients.

(Corrected to December, 1938.)

STATE INSTITUTION.

County within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
Nottinghamshire ...	Rampton, Retford. ...	The Board of Control, Hobart House, Grosvenor Place, London, S.W.1.	F. E. E. Schneider, M.D., D.P.M.	1,151 patients of dangerous or violent propensities: 616 males and 463 females over the age of 16 years and 36 males and 36 females under the age of 16 years.
Lancashire ...	Branch: Moss Side, Maghull, Liverpool.	Do. do.	C. H. G. Gostwyek, M.B., F.R.C.P., D.P.M.	306 patients over the age of 16 years and of dangerous or violent propensities: 150 males and 156 females.



# CERTIFIED INSTITUTIONS.

County within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
1. Bedfordshire ...	Bromham House, Bromham, near Bedford.	Beds and Northants Joint Board for the Mentally Defective.	R. G. B. Marsh, L.R.C.P., D.P.M.	260—60 males and 100 females over the age of 16 years and 50 males and 50 females under the age of 16 years. (Imbeciles, feeble-minded and moral defectives.)
2. Berkshire ...	Cumnor Rise, Cumnor Hill, Oxford.	The Oxford Branch of the National Association for the Feeble-minded. Hon. Sec. of Branch:—Miss M. Durst, 25, Beaumont Street, Oxford. Middlesex C.C. ...	Miss Evans ...	34 feeble-minded females. The age of admission is from 14 years. Epileptics and fallen women not taken.
3. ... ..	Crauford Home, Gringer Hill, Maidenhead.	... ..	Miss E. Kilpack ...	116—102 medium to low grade females over the age of 16 years and 14 cot and chair cases of either sex, including absolute idiots, and excepting males who are no longer children physically or unsuitable to live in association with the other sex.
4. Buckinghamshire	Manor House, Bierton Hill, Aylesbury.	Bucks C.C. ... ..	Miss E. Boughton ...	99— At Manor House: 6 boys and 10 girls—cot and chair cases, 18 juvenile females of active imbecile type and 15 high grade feeble-minded females over the age of 16 years. At the Two Temporary Buildings: 25 active medium to low grade males over the age of 16 years and 25 active medium to low grade males under the age of 16 years.



CERTIFIED INSTITUTIONS—*continued.*

COUNTY within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
5. Carmarthenshire	Pantglas Hall, Llanfynydd Road, Carmarthen.	The West Wales Joint Board for the Mentally Defective.	Miss M. C. Treharne-Jones.	117 females of 7 years of age and upwards, of whom not more than 16 shall be low grade females under the age of 16 years who shall be warded separately.
6. Cheshire...	Ashton House, 26, Village Road, Oxtan, Birkenhead.	Committee of Management Hon. Sec.:—Mrs. Mansfield, Hinderton Hey, Neston, Cheshire.	Miss O. M. Wilkinson	64 feeble-minded females over the age of 14 years.
7. ...	Cranage Hall, near Holmes Chapel.	Cheshire Joint Board for the Mentally Defective.	E. A. Haslam-Fox, M.B., D.P.M.	318—96 males and 182 females over the age of 16 years and 40 cot and chair cases of both sexes. All classes except active lowest grade patients unfit to associate with cot and chair cases.
8. ...	Mary Dendy Home, Sandebridge, Alderley Edge.*	Incorporated Lancs and Cheshire Society for the Permanent Care of the Feeble-minded. Sec.:—Edward M. Richards, 72, Bridge Street, Manchester, 3.	Miss G. Wyatt ...	425 of either sex and of higher grade type.
9. Cornwall	Convent of the Good Shepherd, St. Anne's Saltash.	Committee of Management Sec.:—Sister M. St. Dismas, Convent of the Good Shepherd.	Sister Mary Holman	10 females. High and medium grade cases over the age of 16 years.
10. ...	The Retreat, St. Columb Major.	Cornwall C.C. ...	Miss E. K. G. Mowbray.	111, not more than 55 employable females over the age of 16 years, and not more than 56 low grade children of both sexes under the age of 16 years who shall be suitable to live in association with each other.



11. Cumberland	...	Dovenby Hall Colony. Cockermouth.	Cumberland, Westmorland and Carlisle Joint Committee or the Mentally Defective.	Miss S. J. Bevan ...	295, i.e., 120 males and 175 females.
12. ...	...	Durran Hill House, Carlisle.	Sisters of The Sacred Hearts of Jesus and Mary. Corres.: The Very Rev. Canon Leo Prescott, St. Augustine's, Preston.	Reverend Mother Josephine Scully.	65 feeble-minded females, over the age of 16 years and of the Roman Catholic Faith. Criminals, epileptics and fallen women not accepted.
13. Derbyshire	...	Aston Hall, Aston-on- Trent.	Nottingham C.B.C.	Miss A. Yates ...	332, i.e., not more than 142 males and not more than 190 females, all classes.
14. ...	...	Makeney House, Mil- ford, near Derby.	Derbyshire C.C.	Miss B. Martin ...	80 high-grade females over the age of 16 years.
15. ...	...	Thornhill, Trowels Lane, Derby.	Derby C.B.C.	Miss Batterbee ...	39 females. Not more than 21 able- bodied imbeciles under the age of 16 years and not more than 18 feeble- minded patients over the age of 16 years. Each of the latter group to be received only with the previous con- sent of the Board.
16. ...	...	Whittington Hall, Chesterfield.	The Incorporation of National In- stitutions for Persons requiring Care and Control, 14, Howick Place, Victoria Street, London, S.W.1.	F. W. Furniss, M.B., M.R.C.S., L.R.C.P.	392 females.
17. Devonshire	...	Box House, Axminster	Devon C.C.	Mr. & Mrs. Simmons	131 males, i.e., 122 active medium to low grade cases over the age of 16 years and 9 cot and chair cases.

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CERTIFIED INSTITUTIONS—*continued.*

COUNTY within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
18. Devonshire— <i>cont.</i>	Devon and Exeter Home of the Good Shepherd, Holloway Street, Exeter; <i>with ancillary premises:</i> The Chantry, Exeter; <i>and</i> Home of the Holy Innocents, Franklyn, St. Thomas, Exeter.	Committee of Management ... Sec.:—The Head Deaconess, The Chantry, Exeter.	Miss F. K. Dickson, Head Deaconess.	162 patients, of whom not more than 84 females shall reside at the Devon and Exeter Home of the Good Shepherd; not more than 21 females at The Chantry; and not more than 40 cot and chair eases of either sex, and 17 high and medium grade females over the age of 16 years at the Home of the Holy Innocents.
19. ... ..	Hampton House, Ebrington St., Ply- mouth.	The Committee of the Plymouth, Devonport and Stonehouse Penitentiary and Home. Hon. Sec.—The Rev. J. Robertson, St. Luke's Vicarage, Plymouth.	Miss E. G. Malton...	20 females over the age of 16 years suitable in all respects to live in association with the ordinary innates.
20. ... ..	Stoke Lyne, Withy- combe, Exmouth.	Devon C.C. ... ..	Miss M. R. Lingard	53—47 males of whom not more than 43 shall be of the age of 16 years and under and of whom not more than 9 shall be over the age of 16 years and 6 female working patients.
21. ... ..	The Royal Western Counties Institution, Stareross, near Exeter;* <i>with ancil- lary premises.</i> Elm Court, Stareross; The Hostel, 13. Dix's Field, Exeter; Lang-	Committee of Management ...	Capt. C. W. Mayer, M.B.E.	1,018 patients, i.e., 591 males and 427 females.



22.	...	...	...	Don Farm Hostel, Dawlish; "Dunsk," Teignmouth; "Deers- well," 13, Southfield Road, Paignton, and Langdon Extensions, Dawlish.	Devon C.C....	...	...	Miss Wilson	92 females of active medium to low grade type over the age of 16 years. 79 feeble-minded males over the age of 16 years. Age on admission pre- ferably 16 to 20 years.
23.	Durham	...	...	Monkton Hall Home for Lads, Monkton, Jarrow-on-Tyne.	The Committee of the North- Eastern Association for the Care of the Feeble-Minded. Sec.:—James Stewart, 90, Pilgrim Street, Newcastle-upon-Tyne. Newcastle-upon-Tyne C.B.C.	...	...	Mr. W. C. Keates	473 patients.
24.	...	...	...	Shotley Bridge Colony, Shotley Bridge	Sisters of The Sacred Hearts of Jesus and Mary.	...	...	Miss H. L. C. Yates	6 imbecile and feeble-minded males up to the age of 16 years. All patients to be of a degree of mental defect such as would permit of their living in association with and being in- structed or trained with the children for whom the school is primarily intended.
25.	Essex	...	...	Bigods Hall, near Dun- mow.*	Correspondent. — Sister Rosalie Dunn, Chigwell Convent, Wood- ford Bridge, Essex.	...	...	Sister Francis O'Donoghue.	68 higher grade employable males, over the age of 16 years. 120 feeble-minded females, over the age of 16 years.
26.	...	...	...	Brunswick House, Mistley.	London C.C.	...	...	S. E. Dudley	24 high to medium grade girls under the age of 16 years. Only residents of the village who are subsequently ascertained to be defective are received into the certified accommo- dation.
27.	...	...	...	Ethloe House, Church Road, Leyton, E.10.	Sisters of The Sacred Hearts of Jesus and Mary. Correspondent. — Sister Rosalie Dunn, Chigwell Convent, Wood- ford Bridge, Essex.	...	...	Sister C. Keogh	65 high to medium grade females over the age of 16 years.
28.	...	...	...	Girls' Village Home, Barkingside; with ancillary premises:	Dr. Barnardo's Homes: National Incorporated Association. Chairman of Executive Cttee.: D. J. MacAndrew, The Board Room, 18-26, Stepney Cause- way, E.1.	...	...	Governor: Miss B. Picton-Turbervill.	
				Warlies, Upshire, nr. Waltham Abbey.					

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## CERTIFIED INSTITUTIONS—continued.

County within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
29. Essex—cont. ...	Mutual Sanatoria, Billericay; <i>with ancillary premises.</i>  Ramsey Lodge, Ramsey, Essex.	The Mutual Sanatoria, Ltd. ... Sec.:—A. J. Read, New Lodge, Billericay.	A. J. Read ...	54 males, excepting those who are dangerous to themselves or others, runaways, or who require physical restraint and are unsuitable for care on the "open-door" system. Not more than 12 male mental defectives excluding lowest grade, ambulant and cot and chair cases.
30. ...	The Royal Eastern Counties Institution, Colchester (including Crossley House, Clacton-on-Sea);* <i>with ancillary premises:</i> Lexden House, Colchester; East Hill House, Colchester; Hillsleigh, 10, East Hill, Colchester; Greenwood Schools, Halstead; Bridge Home, Witham; Turner Road, Colchester; and Littleton House, Girton, Cambridge.	Board of Directors ... Secretary: Major A. Turner, T.D.	F. D. Turner, M.B.	1,740 male and female patients.



31.	...	...	South Ockendon Colony, South Ockendon.	West Ham C.B.C.	...	Miss W. S. Butler ...	134, i.e., 84 males and 50 females. The patients in each villa shall be in all respects suitable to live in association with each other and cot and chair and idiot cases shall be excluded.
32.	Flintshire	...	Broughton Institution, Broughton, near Chester.*	Flint C.C.	...	Miss A. E. Fletcher	56, of whom 38 shall be active medium to low grade females over the age of 16 years and of whom 12 males and 6 females shall be active imbeciles under the age of 16 years and capable of using the stairs. The patients in each group shall be in all respects suitable to live in association with each other.
33.	...	...	Coed Du Hall, Rhydymwyn, nr. Mold.	Denbigh C.C.	...	Miss M. P. Elder ...	72 females, i.e., 53 females over the age of 16 years and 19 females under the age of 16 years. The patients in each group shall be suitable to live in association with each other.
34.	Glamorganshire	...	Drynma Hall, Skewen, near Neath.	Glamorgan C.C.	...	E. Lewis, L.R.C.P., L.R.C.S., F.R.F.P.S.	67 females.
35.	...	...	Hensol Castle, near Pontyclun.	Glamorgan C.C.	...	E. Lewis, L.R.C.P., L.R.C.S., F.R.F.P.S.	460, i.e., 250 males and 210 females.
36.	...	...	Llwyn Eryr Training Home, Morriston, Swansea.	Swansea C.B.C.	...	Miss H. V. Williams	27 high to medium grade females over the age of 16 years.
37.	Gloucestershire...	...	Brentry Colony, Westbury - on - Trym, Bristol.	Committee of Management Sec.:—E. R. Abbott, O.B.E., 13, Victoria Street, London, S.W.1. The Sub-Committee of the Bristol Preventive Mission.	...	J. J. Mason, M.B.	385 males over the age of 18 years.
38.	...	...	Chasefield Laundry Home, 888, Fishponds Road, Fishponds, Bristol.	Hon. Sec.:—Mrs. Grey, 2, Overdale Road, Fishponds, Bristol.	...	Miss Hannam	38 feeble-minded females over the age of 16 years.
39.	...	...	Hortham Colony, Almondsbury, near Bristol.	Bristol C.B.C.	...	J. F. Lyons, L.R.C.P., L.R.C.S. D.P.M.	608 i.e. 304 males and 304 females.

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## CERTIFIED INSTITUTIONS—continued.

County within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
40. Gloucestershire— <i>contd.</i>				
41. ... ..	The Royal Fort Home, 1 & 2, Hillside, Cotham, Bristol.	The Sub-Committee of the Bristol Preventive Mission. Hon. Sec.:—Mrs. K. Tanner, 8, Cotham Road, Bristol. Committee of Management ... Hon. Sec.:—Miss M. B. Gibbs, Yew Tree House, Painswick, near Stroud.	Miss Coles ... ..  Miss E. Mutimer ...	36 high grade females over the age of 16 years who shall be received on licence from other Certified Institu- tions. 30 feeble-minded females. Age on admission 14 to 25 years. Cases over the age of 25 to be received only with the previous consent of the Board.
42. ... ..	Stoke Park Colony, Bristol; <i>with ancillary premises:</i> Hanham Hall, Han- ham, near Bristol; Leigh Court, Abbot's Leigh, Somerset.	The Incorporation of National In- stitutions for Persons requiring Care and Control, 14, Howick Place, Victoria Street, London, S.W.1.	The Lady Superin- tendent.	1,818 patients, of whom not more than 910 shall be males and not more than 950 shall be females.
43. Hertfordshire ...	Barvin Park, Northaw, near Potter's Bar.	Westminster Diocesan Education Fund. Sec.:—The Very Rev. Canon Geo. L. Craven, 27, Tavistock Place, W.C.1. Hertfordshire C.C....	Rev. Bro. J. Browne	93 feeble-minded males over the age of 16 years.
44. ... ..	Cell Barnes Colony, St. Albans.	Westminster Diocesan Education Fund. Sec.:—The Very Rev. Canon Geo. L. Craven, 27, Tavistock Place, W.C.1.	N. H. M. Burke, L.R.C.P., D.P.M., D.M.R.F. Reverend Mother C. O'Toole.	600, i.e., 300 males and 300 females.
45. ... ..	Hillside, Buntingford.			48 juvenile male trainable imbeciles, suitable to live in association with each other.



46.	...	...	...	Kingsmead School, Ware Road, Hert- ford.*	Managers appointed by the Herts C.C.	J. E. Tookey ...	22 patients, of whom not more than 10 shall be females over the age of 16 years and not more than 12 shall be children, on the understanding that the total accommodation available in the Institution does not exceed 126, and provided that all cases, whether under or over the age of 16 years, are of a degree of mental defect such as would permit of their living in association with and being instructed or trained with the children for whom the School is primarily intended.
47.	...	...	...	Middlesex Colony Harper Lane, Shen- ley, near St. Albans.	Middlesex C.C. ...	H. E. Beasley, M.B., D.P.M.	994, i.e., 598 males and 396 females.
48	...	...	...	St. Elizabeth's Home for Epileptics, Much Hadham.*	Westminster Diocesan Education Fund. Sec.:—The Very Rev. Canon Geo. L. Craven, 27 Tavistock Place, W.C.1.	Miss M. M. Kirk ...	114, i.e., in the School 3 males and 3 females; in the Colony 108 females. Patients shall be of the Roman Catholic Faith and, whether under or over the age of 16 years, shall be of a degree of mental defect such as would permit of their living in association with and being instructed or trained with the children for whom the School is primarily intended.
49. Kent	...	...	...	Home of the Good Shepherd, Staple- hurst.	Committee of Management ...	Sister Beatrice Reid	10 high-grade females from the age of 14 years and upwards who are suitable for training.
50	...	...	...	Leybourne Grange, West Malling, near Maidstone.	Kent C.C. ...	R. Fitzroy Jarrett, L.M.S.A., F.R.F.P.S.	442, i.e., 186 males and 256 females over the age of 16 years.
51.	...	...	...	Princess Christian's Farm Colony, Hil- denborough.	National Association for the Feeble- minded, Denison House, 296, Vauxhall Bridge Road, West- minster, S.W.1. Sec.:—Mrs. C. F. Topham, Denison House.	Miss E. Makins ...	139, i.e., 71 males and 68 females.

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CERTIFIED INSTITUTIONS—*continued.*

COUNTY within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
52. Kent— <i>contd.</i> ...	West View, Tenterden.	Kent C.C. ... ..	A. G. Groves ...	180 females, of whom not more than 37 shall be under the age of 16 years, and not more than 143 shall be over the age of 16 years, on the understanding that the patients in each group shall be in all respects suitable to live in association with each other.
53. Lancashire ...	Allerton Priory Roman Catholic Special Schools, Woolton, Liverpool.*	Committee of Management ... Correspondent :—Rev. J. Bennett, 150, Brownlow Hill, Liverpool, 3.	Sister Lelia Cannon	41 feeble-minded patients, of whom not more than 1 shall be of the male sex and not more than 40 shall be females; on the understanding that the total accommodation available in the Institution does not exceed 123, and provided that all patients, whether under or over the age of 16 years, are of a degree of mental defect such as would permit of their living in association with and being instructed or trained with the children for whom the School is primarily intended.
54. ... ..	Brockhall, Langho, near Blackburn.	Lancashire Mental Hospitals Board	D. J. Rose, M.R.C.S., L.R.C.P.	772, i.e., 262 males and 510 females, all classes, including epileptics.
55. ... ..	Calderstones, Whalley, near Blackburn.	Do. do.	G. S. Robertson, M.B.	2,378, i.e., 1,414 males and 964 females.



56.	...	...	...	Dovecot, Thomas Lane, Knotty Ash, Liver- pool.*	Committee of the Liverpool Ladies Association for the Care and Training of Girls. Hon. Sec.:—Miss Corbett-Lowe, Flat 3, 45, Canning Street, Liverpool, 8.	Miss A. Meigh ...	30 feeble-minded females; 26 over the age of 16 years and 4 under the age of 16 years, who shall be of an age and of a degree of mental defect such as would permit of their being housed and instructed with the children for whom the school is primarily intended on the understanding that the total accommodation available in the Institution does not exceed 64.
57.	...	...	...	Gillibrand Hall, Chorley	Committee of Management ... Correspondent:—Rev. J. Bennett, 150, Brownlow Hill, Liverpool, 3.	Sister Aimée de St. Rémi.	46 feeble-minded females over the age of 16 years and a limited number of children under the age of 16 years.
58.	...	...	...	Lisieux Hall, Whittle- le-Woods, near Chorley.	The Congregation of the Brothers of Charity.	Bro. Berthwald ...	169 medium to high grade males over the age of 16 years.
59.	...	...	...	The Home, 4, Everton Terrace, Liverpool.	Sec.:—Bro. Brinstan, Lisieux Hall. Committee of Management ... Hon. Sec.:—R. H. Gardner, "Incewood," Park Road, Waterloo, Liverpool.	Miss N. B. Grant ...	20 female feeble-minded and moral defectives over the age of 16 years.
60.	...	...	...	Pontville Aughton, Ormskirk.*	Committee of Management ... Correspondent:—Rev. J. Bennett, 150, Brownlow Hill, Liverpool, 3.	Rev. Mother Barbara	25 feeble-minded male children between the ages of 5 and 16 years; on the understanding that the total number of children received shall not exceed 121, and provided that all patients are of a degree of mental defect such as would permit of their being in association with and being instructed or trained with the children for whom the School is primarily intended.
61.	...	...	...	Royal Albert Institu- tion, Lancaster.	Central Committee of Management Sec.:—J. B. Burr, F.Inst.P.S., Royal Albert Institution.	C. J. Henderson, M.B.	920 males and females.
62.	Leicestershire	...	...	Leicester Frith, Groby Road, Leicester.	Leicester C.B.C. ...	Miss M. Baldwin ...	376, i.e., 181 males and 195 females.

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CERTIFIED INSTITUTIONS—*continued.*

COUNTRY within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
63. Leicestershire — <i>contd.</i>	Stretton Hall, near Leicester.	The Leicestershire and Rutland Joint Board for the Mentally Defective.	Miss Goodman ...	160 patients, of whom 60 shall be medium and high grade males over the age of 16 years, 50 shall be medium and high grade females over the age of 16 years, 20 shall be medium grade females under the age of 16 years and 30 shall be cot and chair cases of either sex.
64. Lincolnshire ...	Harmston Hall Colony, Harmston, Lincoln. <i>with ancillary premises:</i> Holbeach Institution, Fleet Road, Holbeach. Bourne Institution, St. Peter's Road, Bourne. Caistor Institution, Kelsey Road, Caistor.	Lincolnshire Joint Board for the Mentally Defective.	S. J. Laverty, M.B., D.P.M.	340, i.e. 180 males and 160 females, feeble-minded persons and moral defectives. 167 males over the age of 16 years, idiots, imbeciles or feeble-minded patients. 102 females, i.e. 69 females over the age of 16 years, 33 females under the age of 16 years. Idiots, imbeciles and feeble-minded patients. 120, i.e. not more than 18 shall be males and not more than 108 shall be females, idiots, imbeciles or feeble-minded patients as follows:— 12 males under the age of 16 years. 102 females over the age of 16 years. 6 cot and chair cases of either sex. 16 high grade adult female defectives.
	Cross o' Cliff Court, Bracebridge Heath.			



65. London ...	...	Helping Hand Home, 16 Cathcart Hill, Highgate, N.19.	Committee of Management ... Hon. Sec.:—Mrs. G. Russell, J.P., 17, Church Row, Hampstead, N.W.3.	Miss M. Hodgetts ...	30 feeble-minded females, preferably from the age of 16 years.
66. ...	...	London Lock Hospital and Home, 283, Harrow Road, W.9.	Board of Management ... Sec.:—J. F. Morton, A.I.S.A., London Lock Hospital and Home.		7 females. Feeble-minded and moral defectives in need of treatment for venereal disease.
67. ...	...	St. Teresa's, 97, Bel- mont Hill, Lewisham, S.E.13.	Sisters of the Sacred Hearts of Jesus and Mary. Corr. Manager:—The Very Rev. Canon W. H. Monk, St. Peter's, Woolwich, S.E.18.	Mother Hilda Phelan	120 high and medium grade females over the age of 16 years.
68. ...	...	South Side Home, South Side, Streat- ham Common, S.W.16.	London C.C. ...	Miss H. G. Hollyer...	80 females. High-grade feeble-minded cases over the age of 16 years who, save with the Board's previous con- sent, shall be received on licence from other Certified Institutions.
69. Middlesex	...	Bramley House, Clay Hill, Enfield.	Middlesex C.C. ...	Miss A. Swift	66 feeble-minded females over the age of 16 years.
70. ...	...	Pield Heath House School, Hillingdon, Uxbridge.*	Westminster Diocesan Education Fund. Sec.:—The Very Rev. Canon Geo. L. Craven, 27, Tavistock Place, W.C.1.	Sister Cecilia Cullinan	53 females. Feeble-minded and moral defectives; on the understanding that the total number of cases re- ceived into the Institution shall not exceed 123, and provided that all cases so received, whether under or over the age of 16 years, are of a degree of mental defect such as would permit of their living in association with and being instructed and trained with the children for whom the School is primarily intended.

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CERTIFIED INSTITUTIONS—*continued.*

COUNTY within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
71. Middlesex— <i>contd.</i>	St. Raphael's, The Butts, Brentford.	The Sisters of the Institute of the Poor Servants of the Mother of God, St. Mary's Convent, Roehampton, S.W.15. Sec.:—Sister M. Germanus, St. Mary's Convent, Roehampton, S.W.15.	Sister M. Barbara ...	61 high-grade feeble-minded females over the age of 16 years.
72. Norfolk ...	Eaton Grange, Unthank Rd., Norwich.	Norwich C.B.C. ...	Miss E. M. Yeadon	37 high-grade females over the age of 16 years.
73. ...	Little Plumstead Hall, Little Plumstead, <i>with ancillary premises</i> : Heckingham Institution, Heckingham.	Norfolk C.C. ...	J. V. Morris, M.B.	325, i.e. 150 males and 175 females.  176, i.e. 56 males and 120 females, active medium to low grade cases over the age of 16 years.
74. Northumberland	Home of Industry, ("Bow Villa,") Morpeth.	Committee of Management ... Hon. Sec.:—Mrs. East, East Cottingwood, Morpeth.	Miss A. Pawsey ...	16 high to medium grade females over the age of 16 years.
75. ...	Prudhoe Hall Colony, Prudhoe-on-Tyne.*	North Eastern County Boroughs Joint Board for the Mentally Defective.	G. McCoull, M.D. ...	625, i.e. 332 males and 293 females.
76. ...	Rothbury Institution, Rothbury.	Northumberland C.C. ...	Miss S. A. Knott ...	55, i.e. 26 males and 29 females, medium to low grade cases under the age of 16 years.



77. ...	...	St. Andrew's Colony, Northgate, Morpeth.	Northumberland C.C.	...	Miss M. Boyle	...	300 i.e. 120 males and 180 females. All classes within the meaning of the M.D. Acts, 1913-1938, except patients of the lowest cot and chair grades.
78. Oxfordshire	...	Borocourt, Peppard ...	Bucks, Oxon and Reading Joint Board for the Mentally Defective.	...	Miss Gill	...	288, i.e. 107 medium to high grade males over the age of 16 years and 181 females over the age of 16 years.
79. Somerset	...	The Friars, Fryern Lawn, Bridgwater.	Committee of Management	...	Miss A. E. Best	...	17 females. Feeble-minded and moral defectives.
80. ...	...	House of Help, 112, Walcot Street, Bath.	Bath Preventive Mission and Ladies Association for Friend- less Girls. Sec.:—Miss Glynn - Baker, 112, Walcot Street, Bath.	...	Miss G. M. Johnson	...	66 feeble-minded females of the age of 18 years and upwards.
81. ...	...	Old Rectory, Bathwick Hill, Bath.	Bath Voluntary Association for Mental Welfare. Sec. to the Hostel: Mrs. Bence.	...	Miss Russell	...	21 high or medium grade feeble-minded females over the age of 16 years who shall be received on licence from other Certified Institutions.
82. ...	...	Rock Hall House (Magdalen Hospital School), Combe Down, Bath.	Trustees of the Municipal Charities Sec.:—A. I. Ingram, 4, Queen Square, Bath.	...	Miss L. S. Davison	...	47 medium to high grade children of either sex who shall be in all respects suitable to live in association with each other, excluding cot and chair cases. No female patient to be re-tained beyond the age of 16 years and no male patient beyond the age of 14 years without the previous consent of the Board.

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CERTIFIED INSTITUTIONS—continued.

COUNTY within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
83. Somerset—contd.	Sandhill Park, Bishop's Lydeard, near Taunton,* <i>with ancillary premises</i> :—  Yatton Hall, Yatton, near Bristol.	Somerset C.C.      ...      ...	T. A. Danby, M.B., D.P.H.	161 patients distributed as follows :— Wills House (The Mansion) : 101 females; Fry House : 60 males over the age of 16 years.  76 patients of both sexes of whom not more than 33 shall be boys. Such patients shall be—except with the consent of the Board—low grade children of both sexes under the age of 16 years, each child to be in all respects suitable to live in a house where the sexes are associated; and high grade females between the ages of 16 and 20 years.
	West End House, Shepton Mallet.			129 females, i.e., 120 ambulant and 9 cot and chair cases.
	Cambridge House, Long Ashton.			120 males, i.e., 91 ambulant cases over the age of 16 years and 29 cot and chair cases.
84.      ...      ...      ...	Totterdown Hall, Uphill, Weston - super-Mare.	The Sisters of the Institute of the Poor Servants of the Mother of God, St. Mary's Convent, Roehampton, S.W.15.	Sister Patricia Harmon.	60, i.e., 25 high grade females over the age of 16 years and 35 trainable medium grade females under the age of 16 years.



85.	Southampton ...	Coldeast Colony, Sarisbury, near Southampton.	Hampshire Joint Mental Institutions Committee.	Alban Wilson, L.R.C.P., D.P.M.	500, i.e., 175 males and 325 females.
86.	... ..	Free Church Council Hostel (St. Paul's House), 71, King Street, Portsea, Portsmouth.	The Free Church Women's Council (Portsmouth and District). Hon. Sec.:—Mrs. H. Pearce, 42, Outram Road, Southsea.	Sister E. Shepherdson.	7 high grade females over the age of 16 years.
87.	... ..	Mount Tabor, Darlington Road, Basingstoke, with ancillary premises:— St. John's House, Sherborne Road, Basingstoke.	Sisters of the Transfiguration. Correspondent: Sister Mary Frances.	Sister Mary Frances	50 feeble-minded and high grade imbecile females over the age of 16 years. Church of England cases only. 20 active low grade females under the age of 16 years.
88.	... ..	St. Mary's Home, Alton, with ancillary premises:—  Home of the Holy Rood, Findon, Sussex. St. Mary's Home, 179, Priory Road, Hastings, Sussex. St. John's Hostel, 17 and 18, Grove Park, Denmark Hill, London, S.E.5.	Sisters of the Community of St. Mary the Virgin of Wantage, Berks. Correspondent: Sister Edith Emma.	Sister Edith Emma.	45 fallen females over the age of 16 years.  12 females over the age of 16 years.
89.	... ..	Tatchbury Mount Colony, West Totton.	Hampshire Joint Mental Health Institutions Committee.	W. M. Worlock ...	12 high grade females between the ages of 16 and 40 years. 9 high grade females over the age of 16 years.  137 males, high grade and ambulant low grade type over the age of 16 years.

\* Certified as a Special School by Board of Education.



## CERTIFIED INSTITUTIONS—continued.

COUNTY within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
90. Staffordshire ...	Great Barr Park Colony, Great Barr, near Birmingham.	Walsall and West Bromwich (Barr Colony) Joint Board.	D. M. MacMillan, M.B., D.P.M.	1,355 patients, of whom not more than 690 shall be males and not more than 638 shall be females and of whom not more than 27 shall be cot and chair cases of both sexes.
91. ...	Stallington Hall, Blythe Bridge, Stoke-on-Trent.	Stoke-on-Trent C.B.C. ...	Miss M. A. Cahill ...	77. <i>In the Mansion</i> : 44 females suitable to live in association with each other, and 16 males under the age of 21 years suitable to live in association with each other. <i>In the Male Block</i> : 17 males over the age of 16 years suitable to live in association with each other.
92. Suffolk ...	Handford Home, 253 & 255, Ranelagh Road, Ipswich.	Ipswich C.B.C. ...	Miss D. B. Miller ...	22 high grade feeble-minded females over the age of 16 years.
93. ...	St. Joseph's Home, The Croft, Sudbury.	Committee of Management Sec.: Rev. R. Gerard Moir, The Priest's House, Sudbury. Surrey C.C. ...	Mother de Sales Gilmartin. K. C. L. Paddle, M.C., L.R.C.P., D.P.M.	43 feeble-minded females from 16 to 20 years of age. 109 males over the age of 16 years of the younger employable type.
94. Surrey ...	Botley's Park, Chertsey, with ancillary premises: Murray House, Ottershaw, nr. Chertsey.	Surrey C.C. ...	E. C. Hannan ...	300 females over the age of 16 years and patients of both sexes under the age of 16 years. 168 males of whom 156 shall be imbeciles and feeble-minded patients over the age of 16 years and 12 shall be cot and chair cases.
95. ...	Clerk's Croft, Bletchingley.	Surrey C.C. ...	E. C. Hannan ...	



96.	...	...	Eagle House, London Road, Mitcham.	Surrey Voluntary Association for Mental and Physical Welfare. Sec.:—Miss W. Gibson, B.Sc., 18, Park Street, Guildford.	Miss F. Winslow ...	46 high grade imbecile and feeble-minded females between the ages of 16 and 36 years. Patients over the age of 36 years to be received only with the previous consent of the Board.
97.	...	...	The Ellen Terry National Home for Blind Defective Children, "Sandfield," Wray Park Road, Reigate.	Servers of the Blind League ... Org. Sec.: Miss K. E. Lambe, 28, Manchester Street, Dorset Street, W.I.	Miss E. M. Cooke ...	30 patients, distributed as follows:— <i>In the Main Building (Terry House):</i> 14 girls up to the age of 16 years; 4 boys up to the age of 12 years. <i>In the Annex (Daffodil House):</i> 9 boys and 3 girls up to the age of 12 years. Patients shall be imbecile blind patients in all respects suitable to live in houses where the sexes are associated.
98.	...	...	Farmfield, near Horley.	London C.C.	A. J. Oldfield, M.B.E.	161, i.e., 141 males (adult or adolescent) of criminal experience or intractable disposition of the age of 14 years and upwards. <i>In the Hostel:</i> 20 selected male patients.
99.	...	...	The Manor, Epsom, with ancillary premises: Hollywood Lodge, Epsom Common.	Do.	E. S. Littelljohn, M.R.C.S., L.R.C.P.	1,292, i.e., 611 males and 681 females, of whom 38 high grade females over the age of 16 years shall be accommodated in Hollywood Lodge.
100.	...	...	Mount Olivet, Farnham, near Farnham.	The Congregation of the Servants of Christ the King. Sec.: A. E. Pearse, Mount Olivet Monastery.	The Rev. Brother Joseph.	30 feeble-minded males over the age of 16 years. Age on admission preferably 16 to 20 years.



CERTIFIED INSTITUTIONS—*continued*.

County within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
101. Surrey— <i>contd.</i>	The Royal Earlswood Institution, Redhill, and branch Institution, Earlswood House, Walton-on-the-Naze.	Board of Management ... Sec.: H. Stephens, 14/16, Ludgate Hill, London, E.C.4.	H. R. Ferguson, M.B., D.P.M.	575 patients of both sexes. Epileptic patients received.
102. ...	The Royal Hostel, Royal Common, Eashing, Godalming.	Surrey Voluntary Association for Mental and Physical Welfare. Sec.: Miss W. Gibson, B.Sc., 18, Park Street, Guildford.	C. Mason ...	32 high grade stabilised male defectives who shall be between the ages of 16 and 35 years on admission and who shall preferably in the first instance be received on licence from other Certified Institutions.
103. Sussex ...	Dungates, Horeham Road.	Guardianship Society, Brighton Medical Director: S. E. Gill, M.D., 3, Buckingham Place, Brighton, 1. Committee of Management ... Hon. Sec.: Miss M. Beale, Stan- den, East Grinstead.	H. Jenkins ...	7 feeble-minded males over the age of 16 years.
104. ...	Hermitage Training Home: The Hermitage and Lark's Hill, Fairwarp, near Uckfield, with ancillary premises: Wharf House, Malling Street, Lewes. (To be used for the purposes of a hostel.)		Miss M. Walton ...	28 high to medium grade females.
105. ...	Laughton Lodge, Laughton, nr. Ringmer.	Brighton C.B.C. ...	A. D. J. Cobb ...	16 high to medium grade females. All patients shall be over the age of 16 years except with the previous consent of the Board. 180 ambulant cases over the age of 16 years, i.e. 60 high grade males, 60 low to medium grade males, and 60 low to medium and high grade females.



106. ...	...	Tubwell Farm, Jarvis Brook, near Crowborough.	Guardianship Society, Brighton. Medical Director: S. E. Gill, M.D., 3, Buckingham Place, Brighton, 1.	T. Wells ...	7 feeble-minded males between the ages of 16 and 25 years.
107. Warwickshire ...	...	Agatha Stacey Home, Rednal, near Birmingham.	Committee of Management Sec.: Miss M. E. Warner, 143, Broad Street, Birmingham.	Miss D. O. Hall ...	40 feeble-minded females over the age of 15 years.
108. ...	...	Coleshill Hall, near Birmingham, <i>with ancillary premises</i> : Marston Green Division, Marston Green, nr. Birmingham.	Birmingham C.B.C. ...	H. Freize Stephens, M.R.C.S., L.R.C.P.	420, i.e., 180 males and 240 females. Imbeciles, feeble-minded and moral defectives over the age of 16 years. 493, i.e., 210 males (168 adults and 42 boys), 215 females (167 adults and 48 girls), 44 cot and chair cases of both sexes, 24 sick of both sexes.
109. ...	...	Midland Counties Institution, Knowle, near Birmingham.	Committee of Management Sec.:—S. H. Thornton.	S. H. Thornton ...	197 males.
110. ...	...	Monyhull Colony, Monyhull Hall Road, King's Heath, Birmingham,* <i>with ancillary premises</i> : "The Laurels," 233, Monyhull Hall Road, King's Norton, Birmingham.	Birmingham C.B.C. ...	A. M. McCutcheon, M.B., F.R.F.P.S.	1,230, i.e., 583 males and 647 females.
111. ...	...	Warwickshire Weston Colony, Weston-under-Weatherley, nr. Leamington Spa.	Warwick C.C. ...	A. B. Lane ...	13 high grade females over the age of 16 years. 138 over the age of 16 years, i.e., 32 high grade males, 49 medium to low grade females and 57 high grade females.

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## CERTIFIED INSTITUTIONS—continued.

COUNTY within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
112. Wiltshire ...	Pewsey Institution, Wilcott Road, Pewsey.	Wilts C.C. ...	Miss M. Pugh ...	251, i.e., not more than 60 high to medium grade males over the age of 16 years, not more than 60 medium to active low grade males over the age of 16 years, not more than 69 high to medium grade females over the age of 16 years, not more than 6 cot and chair cases, not more than 6 active low grade imbecile children under the age of 16 years, and not more than 50 female imbecile children under the age of 16 years.
113. ...	Purton Institution, nr. Swindon.	Do. ...	Miss M. M. S. Brownlie.	48 patients: 30 feeble-minded females over the age of 16 years and 18 cot and chair cases of both sexes under the age of 16 years.
114. ...	Wilton Institution, (King Way House), Wilton, Salisbury.	Do. ...	Mrs. Rumball ...	65 imbecile and feeble minded females over the age of 16 years.
115. Worcestershire	Besford Court, Worcester,* with ancillary premises: St. Joseph's, Astwood, Bank, nr. Redditch.	Committee of Management ...	The Rev. P. F. M. McSwiney.	190 males, on the understanding that the total number of cases received into the premises shall not exceed 380 males, and provided that all cases so received are of a degree of mental defect such as would permit of their living in association with and being instructed or trained with the children for whom the School is primarily intended.



116. Yorkshire	...	Brandesburton Hall, Brandesburton.	E. Riding and York Joint Board for the Mentally Defective.	Miss E. Lee	...	260, i.e., 140 males and 120 females as follows: 99 higher grade adult male patients; 21 working adult male patients; 20 lowest grade cot and chair males under the age of 16 years; 20 lowest grade cot and chair females under the age of 16 years; 65 medium to high grade females (juvenile and younger adults); 35 active low grade females of all ages.
117. ...	...	Claypenny Colony, Easingwold.	North Riding of Yorks C.C.	Miss Harle	...	270, i.e., 123 females over the age of 16 years, 16 females under the age of 16 years, 90 males over the age of 16 years and 30 males under the age of 16 years of medium to high grade type, and 11 cot and chair cases of either sex suitable to live in association.
118. ...	...	Cliffe House, Elm Lane, Shiregreen, Sheffield.	Sheffield C.B.C.	Miss E. M. Edwards	...	29 low-grade males under the age of 16 years.
119. ...	...	Hollow Meadows, Malin Bridge, nr. Sheffield.	Do.	Miss Carrol	...	58 imbecile and feeble-minded males.
120. ...	...	The Mansion, Kirkbur- ton, near Hudders- field.	West Riding of Yorks C.C.	Miss J. Drury	...	60 females, i.e., 24 under the age of 16 years, 24 over the age of 16 years, 12 idiot and cot and chair cases.
121. ...	...	Meanwood Park Colony, Meanwood, Leeds, with ancillary pre- mises: 1. Armley Grange, Leeds. 2. Kestorn, Morris Lane, Kirkstall, Leeds.	Leeds C.B.C.	Miss C. S. Wilson	...	431, i.e., 163 males and 268 females.
						19 mentally defective boys who shall not be over the age of 16 years. 40 high grade feeble-minded females over the age of 16 years.

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## CERTIFIED INSTITUTIONS—continued.

County within which the Institution is situate.	Name and Address of Institution.	Names of Managers or Owners.	Name of Superintendent.	Number and class of Defectives.
Yorkshire— <i>contd.</i>	Meanwood Park Colony ( <i>contd.</i> ). 3. Crooked Acres, Spen Lane, Kirkstall. Mid-Yorks Certified Institution, Whixley, York.	Mid-Yorkshire Joint Board for the Mentally Defective.	W. Lombard ...	31 high grade female defectives over the age of 15 years. 214 males.
122. ... ..	Oulton Hall, Oulton, near Leeds.	West Riding of Yorks C.C. ...	W. T. Williams ...	264 males. The classification to be as follows :— <i>In the Mansion</i> : 164 over the age of 16 years, i.e., 116 high grade, 32 medium grade, and 16 active low grade and epileptic—excluding cot and chair cases. No patient who is unable to walk up and down stairs shall be admitted. <i>In the Two New Villas</i> : 100 under and over the age of 16 years, including cot and chair cases, i.e., 50 medium to low grade under the age of 16 years, and 50 medium to low grade over the age of 16 years.
123. ... ..	Rawcliffe Hall, near Goole.	West Riding of Yorks C.C. ...	Miss M. F. Pearne ...	121 females of the age of 10 years and upwards.
124. ... ..	St. Catherine's, Loversall, Doncaster.	S.W. Yorkshire Joint Board for the Mentally Defective.	J. S. Allen, M.B., D.P.M.	480, i.e., 210 males and 270 females.
125. ... ..				



126. ...	...	St. Joseph's School, Howard Hill, Sheffield.	The Sisters of Charity of Vincent de Paul.	St.	Sister Francis Faulds	72 females, i.e., 30 medium grade girls under the age of 16 years and 42 cot and chair cases.
127. ...	...	Tilworth Grange, Sutton, nr. Hull.	Kingston-upon-Hull C.B.C.	...	Miss A. M. Bruorton	145 females.
128. ...	...	Wales Court, Kiveton, nr. Sheffield.	Sheffield C.B.C.	...	Miss A. McColl ...	50 females of high and medium grade over the age of 16 years.
129. ...	...	Westwood, Cooper Lane, Bradford, with ancillary premises : Ashfield, 269, Thorn- ton Road, Thornton, near Bradford.	Bradford C.B.C.	...	F. H. MacDonald ...	300, i.e., 200 males and 100 females.  50 females over the age of 16 years.



## INSTITUTIONS APPROVED UNDER SECTION 37.

Owning Local Authority. (C.B. = County Borough.)	Name and Address of the Institution. (see footnotes 1 and 2.)	Number and class of Defectives. (see footnote 3.)
1. Berkshire ...	Bradfield P.A.I. (Central House), Bradfield, near Reading.	143 females, i.e. 69 high to medium grade cases over the age of 16 years, 42 medium to low grade cases over the age of 16 years, to be accommodated in the main building; 20 cot and chair cases and 12 senile cases to be accommodated in the infirmary.
2. ...	Easthampstead P.A.I. (Resthouse), Bracknell ...	123 males, i.e. 10 cot and chair cases; 27 juveniles (under 16 years of age), 44 younger adults (over the age of 16 years and suitable in all respects to live in association with each other), and 42 older adults (over 16 years of age).
3. Buckinghamshire ...	Aylesbury P.A.I., 100, Bierton Hill, Aylesbury ...	18 males and 12 females over the age of 16 years (in-County cases only).
4. ...	Winslow P.A.I., 1, Buckingham Road, Winslow ...	9 males and 40 females over the age of 16 years.
5. Cambridgeshire ...	Cambridge P.A.I., 81A, Mill Road, Cambridge ...	4 males and 10 females over the age of 16 years. Suitable for treatment in a common ward (in-County cases only).
6. ...	Chesterton P.A.I., 29, Union Lane, Cambridge ...	2 males and 8 females over the age of 16 years (in-County cases only.)
7. (Isle of Ely C.C.) ...	Ely P.A.I. (Tower House), Cambridge Road, Ely...	10 females over the age of 16 years.
8. ...	Linton P.A.I. (Red House), Symond's Lane, Linton.	4 males and 4 females over the age of 16 years (in-County cases only).
9. Caernarvonshire ...	Caernarvon P.A.I. (Bodfan Mental Home), The Park, Caernarvon.	19 males and 16 females, low grade trainable children under 16 years of age, with the exception of 4 females who may be over that age provided they are suitable cases to mix with the children. No child with dangerous sex tendencies shall be received and no boy over the age of 12 years at the date of application shall be accepted for admission.
Cheshire.		
10. (Birkenhead C.B.) ...	Birkenhead P.A.I., 56, Church Road, Higher Tranmere, Birkenhead.	30 patients of either sex over the age of 16 years from the areas of the Birkenhead and Wallasey L.A's. Epileptic patients received.



11. Cheshire— <i>contd.</i>	...	Congleton (Arcled), P.A.I., Sandbach	...	16 males over the age of 16 years and 14 cot and chair or lowest grade active cases of either sex under the age of 16 years.
12. Cornwall ...	...	Falmouth P.A.I. (Budock House), Falmouth	...	34 males and 13 females of whom not more than 10 males and 13 females shall be over the age of 16 years and of whom 24 males shall be under the age of 16 years.
13. Denbighshire	...	Ruthin P.A.I., Gorffwysfa, Ruthin	...	18 males and 1 female over the age of 16 years. Epileptic patients received.
Derbyshire.				
14. (Derby C.B.)	...	Derby P.A.I. (Boundary House), Uttoxeter Road, Derby.		30 females over the age of 16 years (in-County cases only).
15. ...	...	Glossop P.A.I. (Shire Hill View), Bute Street, Glossop.		12 males and 12 females over the age of 16 years (in-County cases only).
16. Devonshire	...	Barnstaple P.A.I., 19, Alexandra Road, Barnstaple		20 males and 6 females over the age of 16 years.
17. (Plymouth C.B.)	...	Ford House, Wolesley Road, Ford, Devonport, Plymouth.		25 males and 50 females over the age of 16 years.
18. (Exeter C.B.)	...	Exeter City Hospital, 77, Heavitree Road, Exeter		12 males and 12 females over the age of 16 years.
19. ...	...	St. Thomas P.A.I. (Red Hill House), Okehampton Road, St. Thomas, Exeter.		6 males and 12 females over the age of 16 years.
20. ...	...	South Molton P.A.I., 1, North Road, South Molton		15 males and 34 females over the age of 16 years (in-County cases only). Epileptic patients received.
21. Dorsetshire	...	Bridport P.A.I. (Bedford House), 1, Bedford Place, Bridport.		29 females over the age of 16 years (in-County cases only). <i>In the Mental Block</i> : 25 active medium to low-grade cases. <i>In the Infirmary</i> : 4 bed-ridden cases.
22. Durham ...	...	Bishop Auckland P.A.I. (Oaklands), Bishop Auckland.		82 females over the age of 16 years.
23. (Darlington C.B.)	...	Darlington Municipal Institution, 90, Yarm Road, Darlington.		6 males and 6 females over the age of 16 years (in-County cases only).
24. (Gateshead C.B.)	...	Gateshead P.A.I. (High Teams Hospital), Gateshead.		4 males and 19 females over the age of 16 years (in-County cases only.)
25. (South Shields C.B.)	...	Harton Instn., 169, Harton Lane, South Shields		78 older lower-grade active males.
26. (W. Hartlepool C.B.)	...	West Hartlepool P.A.I. (Howbeck Colony), West Hartlepool.		50 males and 160 females. All classes.
27. (West Ham C.B.)	...	Forest Gate Hospital, Forest Lane, Forest Gate, E.7 (Address: The Medical Superintendent).		20 males and 30 females over the age of 16 years and 10 males and 15 females under the age of 16 years (in-County cases only). All classes and epileptics received.

NOTES: 1. When communicating with the Institution address letters to "The Superintendent," except where it is indicated that there is a Medical Superintendent in charge. 2. P.A.I. means Public Assistance Institution. 3. Except where otherwise stated patients are to be of active medium to low-grade type.



INSTITUTIONS APPROVED UNDER SECTION 37—*continued.*

Owning Local Authority (C.B. = County Borough.)	Name and Address of the Institution. (see footnotes 1 and 2.)	Number and class of Defectives. (see footnote 3.)
28. Essex— <i>contd.</i> ...	Lexden and Winstree P.A.I. (Winstree House), Stanway.	36 females over the age of 16 years.
29. ... ..	Saffron Walden P.A.I. (People's Home), Radwinter Road, Saffron Walden.	4 females over the age of 16 years.
30. Flintshire ...	St. Asaph P.A.I., Denbigh Road, St. Asaph ...	12 males and 12 females over the age of 16 years.
31. Glamorganshire ... (Cardiff C.B.).	Cardiff P.A.I. (Ely Lodge), Ely, Cardiff. (Address: The Medical Superintendent).	152 patients. Not more than 89 males and not more than 69 females; i.e. 51 males and 38 females active cases over the age of 16 years; 32 males and 25 females active cases under the age of 16 years and 6 cot and chair cases of either sex under the age of 16 years.
32. Gloucestershire ...	Cirencester P.A.I., 24, Querns Hill, Cirencester ...	10 females over the age of 16 years and 15 males and 10 females under the age of 16 years
33. (Bristol C.B.) ...	Stapleton P.A.I. (Snowden Buildings), 100, Manor Road, Fishponds, Bristol.	100 males and 100 females over the age of 16 years.
34. ... ..	Stow-on-the-Wold P.A.I. (East View), Stow-on-the-Wold.	25 active low-grade males over the age of 16 years.
35. Herefordshire ...	Ross P.A.I. (The Infirmary), 3, Alton Street, Ross.	40 patients, viz. 10 males being young men of medium-grade, and 15 males being active low-grade cases; and 15 females of active medium to low-grade type; all cases to be over the age of 16 years (preference given to in-County cases).
36. Hertfordshire ...	Bishop's Stortford P.A.I. (Haymeads), Bishop's Stortford.	40 females. Active lower-grade older adults.
37. ... ..	Watford P.A.I. (Shrodells), 60, Vicarage Road, Watford.	18 males and 22 females over the age of 16 years (in-County cases only).
38. Isle of Wight ...	Isle of Wight P.A.I. (Forest House), Parkhurst ...	20 males and 20 females over the age of 16 years (in-County cases only).
Kent.		
39. (Canterbury C.B.) ...	Canterbury P.A.I. (The Home), Nunnery Fields, Canterbury.	10 males and 10 females. Active medium to low-grade older adults.
40. ... ..	Cranbrook P.A.I. (Hartley House), Cranbrook ...	15 males and 20 females over the age of 16 years.



41.	...	...	...	Eastry P.A.I., 2, Mill Lane, Sandwich	...	130, i.e. 60 active medium to low-grade males over the age of 16 years, 18 active and trainable males under the age of 16 years, 24 active medium to low-grade females over the age of 16 years, 17 active low-grade males under the age of 16 years in Dixons block, 11 active low-grade females under the age of 16 years in the Nursery block (in-County cases only). 30 females over the age of 16 years.
42.	...	...	...	Sundridge P.A.I. (Birchfield House), Sundridge, Sevenoaks.	...	39 older adult males of active lower-grade type.
43.	Lancashire	...	...	Clitheroe P.A.I., Chatburn Road, Clitheroe	...	
44.	...	...	...	Chorley P.A.I., 152, Eaves Lane, Chorley...	...	50 patients over the age of 16 years, of whom not more than 15 shall be males and not more than 35 shall be females. Patients shall be of approximately the same age and grade, and suitable to mix with the ordinary inmates and not requiring training. 101 males and 134 females. (The managers desire the accommodation at this Institution to be set aside for the reception of high-grade certified mental defectives between the ages of 5 and 16 years who are likely to benefit from the different forms of training provided.)
45.	...	...	...	Seafeld House, Waterloo Road, Seaforth, near Liverpool.	...	122; not more than 61 males and not more than 61 females, medium to low-grade cases under the age of 16 years. 85 active lower-grade females over the age of 16 years.
46.	...	...	...	Swinton Home, 196, Partington Lane, Swinton, near Manchester.	...	40 females over the age of 16 years.
47.	...	...	...	Ulverston P.A.I., 27, Stanley Street, Ulverston	...	23 males over the age of 16 years.
48.	Leicestershire	...	...	Loughborough P.A.I., 59A, Regent Street, Loughborough.	...	
49.	...	...	...	Mountsorrel P.A.I., Mountsorrel, near Loughborough.	...	
50.	Lincolnshire (Lincoln C.B.)	...	...	Lincoln P.A.I., 8A, Burton Road, Lincoln	...	10 males and 10 females over the age of 16 years (in-County cases only). Epileptic patients received. All classes within the meaning of the M.D. Acts, 1913-1938. Reserved for London cases only.
51.	London	...	...	Caterham Hospital (L.C.C.), Caterham, Surrey. (Address: The Medical Superintendent). <i>With ancillary premises:</i> Chaldon Mead, Caterham	...	35 employable high grade males over the age of 16 years.

NOTES: 1. When communicating with the Institution address letters to "The Superintendent," except where it is indicated that there is a Medical Superintendent in charge. 2. P.A.I. means Public Assistance Institution.

3. Except where otherwise stated patients are to be of active medium to low-grade type.



INSTITUTIONS APPROVED UNDER SECTION 37—*continued.*

Owning Local Authority. (C.B. = County Borough.)	Name and Address of the Institution. (see footnotes 1 and 2.)	Number and class of Defectives. (see footnote 3.)
52. London— <i>contd.</i> ...	Darenth Park, Dartford, Kent. (Address: The Medical Superintendent.) <i>With ancillary premises:</i> Leytonstone House, High Road, Leytonstone, Essex.	All classes within the meaning of the M.D. Acts, 1913-1938. Reserved for London cases only.
53. ...	Fountain Hospital, Tooting Grove, Tooting Graveney, S.W.17. (Address: The Medical Superintendent.)	184 high grade females over the age of 16 years.
54. ...	Leavesden Hospital, Abbot's Langley, near Watford, Herts. (Address: The Medical Superintendent.)	All classes within the meaning of the M.D. Acts, 1913-1938. Reserved for London cases only.
55. ...	St. Stephen's Hospital, 369, Fulham Road, S.W.10. (Address: The Medical Superintendent.)	All classes within the meaning of the M.D. Acts, 1913-1938. Reserved for London cases only.
56. Merionethshire ...	Festiniog P.A.I., Llys Ednyfed, Minffordd, Pen-rhyndeudraeth.	5 males and 10 females over the age of 16 years suffering from venereal disease, all classes within the meaning of the M.D. Acts, 1913-1938.
57. Monmouthshire ...	Pontypool P.A.I., (Coedygrie House), Griffithstown, Pontypool.	23 males and 27 females over the age of 16 years.
58. Montgomeryshire ...	Forden P.A.I., Forden, near Welshpool ...	55 females over the age of 16 years.
59. ...	Newtown and Llanidloes P.A.I. (The Lodge), Caersws.	32 male and 48 female active low-grade patients over the age of 16 years.
60. Norfolk ...	Pulham Market P.A.I., (Hill House), Pulham Market, near Diss.	44 male and 37 female active low-grade imbeciles under the age of 16 years and 9 male and 9 female cot and chair cases under the age of 16 years.
61. ...	Attleborough (Wayland) P.A.I., (Cades Hill House), Attleborough.	12 females over the age of 16 years.
62. Northamptonshire ...	Kettering P.A.I., 77, London Road, Kettering ...	12 females over the age of 16 years (in-County cases only).
63. (Northampton C.B.) ...	Northampton P.A.I., 137A, Wellingborough Road, Northampton.	16 males and 16 females over the age of 16 years.
64. (Soke of Peterborough C.C.)	Peterborough P.A.I., (Thorpe Road House), Thorpe Road, Peterborough.	9 patients of either sex over the age of 16 years (in-County cases only). 12 males and 21 females over the age of 16 years (in-County cases only).



65.	...	...	Wellingborough P.A.I., 3A, Castle Street, Wellingborough.	10 males and 20 females over the age of 16 years (in-County cases only).
66.	Nottinghamshire	...	Basford P.A.I., 121, Highbury Road, Bulwell, Nottingham.	40 high and medium-grade females over the age of 16 years (in-County cases only).
67.	...	...	East Retford P.A.I., 1, Leverton Road, Retford...	4 males and 8 females over the age of 16 years (in-County cases only).
68.	...	...	Mansfield P.A.I., 105, Stockwell Gate, Mansfield	6 males and 12 females over the age of 16 years (in-County cases only).
69.	...	...	Southwell P.A.I., (Greet House), Upton, Southwell.	3 males and 4 females over the age of 16 years.
70.	Oxfordshire	...	Chipping Norton P.A.I., 26, London Road, Chipping Norton.	15 males and 25 females over the age of 16 years.
71.	Rutlandshire	...	Oakham P.A.I., (The Ashes), Ashwell Road, Oakham.	13 females over the age of 16 years (in-County cases only).
72.	Shropshire	...	Church Stretton P.A.I., 50, Shrewsbury Road, Church Stretton.	5 females over the age of 16 years (in-County cases only).
73.	...	...	Madeley P.A.I., (The Beeches), Iron Bridge, Madeley.	10 males and 15 females over the age of 16 years (in-County cases only).
74.	Somerset (Bath C.B.)	...	Bath P.A.I., (Frome Road House), Odd Down, Bath.	10 males over the age of 16 years.
75.	Southampton	...	Alresford P.A.I., Tichborne Down, nr. Alresford	56 males of active older lower to medium type.
76.	...	...	Basingstoke P.A.I., (Cowderys Down House), Old Basing, Basingstoke.	30 females over the age of 16 years.
77.	...	...	Crandall P.A.I., Crondall, nr. Farnham, Surrey ...	32 active older lower grade females over the age of 16 years.
78.	(Portsmouth C.B.)	...	St. Mary's Hospital, Milton, Portsmouth. (Address : The Medical Superintendent).	29 males and 31 females. All classes over the age of 16 years. Epileptic patients received.
79.	Staffordshire. (Burton-on-Trent C.B.)	...	Burton-on-Trent P.A.I. (Belevedere House), 145, Belvedere Road, Burton-on-Trent.	14 males and 10 females over the age of 16 years. Epileptic patients received.
80.	...	...	Sedgley P.A.I. (Burton House), 10, Burton Road, Sedgley, Worcs.	57 males and 65 females over the age of 16 years.
81.	...	...	Wordsley Institution (Sandfield House), Wordsley, near Stourbridge, <i>with ancillary premises (annex) :</i> Sandfield, Wordsley, near Stourbridge.	10 males and 10 females over the age of 16 years. All classes within the meaning of the M.D. Acts.

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3. Except where otherwise stated patients are to be of active medium to low-grade type.



INSTITUTIONS APPROVED UNDER SECTION 37—*continued*.

Owning Local Authority (C.B. = County Borough.)	Name and Address of the Institution. (see footnotes 1 and 2.)	Number and class of Defectives. (see footnote 3.)
Staffordshire— <i>contd.</i>		
82. (Wolverhampton C.B.)	Wolverhampton P.A.I. (New Cross Institution), 376, Wolverhampton Road, Heath Town, Wolverhampton.	17 males and 14 females over the age of 16 years.
83. Suffolk (Ipswich C.B.) ...	Ipswich P.A.I. (Heathfield), Woodbridge Road, Ipswich.	20 males and 25 females over the age of 16 years (in-County cases only).
84. (West Suffolk C.C.) ...	Risbridge P.A.I., Kedington ...	201, i.e. 99 males and 102 females. Older adult lower grade cases.
85. Surrey (Croydon C.B.) ...	Queen's Road Homes, Croydon ...	7 low grade males under the age of 16 years.
86. ... ..	St. Anne's P.A.I., Redhill ...	19 females over the age of 16 years.
87. Sussex (East Sussex C.C.)	Cuckfield P.A.I. (West Hylands), Cuckfield ...	10 males and 20 females over the age of 16 years.
88. (Eastbourne C.B.) ...	St. Mary's Institution, 123, Church Street, East- bourne.	1 female over the age of 16 years.
89. (West Sussex C.C.) ...	East Preston P.A.I. (North View), East Preston, near Littlehampton.	6 males and 15 females over the age of 16 years.
90. (Hastings C.B.) ...	Hastings P.A.I. 40, Frederick Road, Ore, Hastings	12 males and 12 females over the age of 16 years. Epileptic patients received.
91. (West Sussex C.C.) ...	Horsham P.A.I., 78, Crawley Road, Horsham ...	16 females over the age of 16 years (in-County cases only).
92. (East Sussex C.C.) ...	Lewes P.A.I. (Chailey), Pouchlands House, South Common, near Lewes.	58 males and 15 females over the age of 16 years.
93. (West Sussex C.C.) ...	Midhurst P.A.I. (Budgenor Lodge), Midhurst ...	12 males over the age of 16 years (in-County cases only).
94. Warwickshire. ...	Alcester P.A.I., Alcester ...	23 females over the age of 16 years.
95. (Birmingham C.B.) ...	Erdington House, 18, Union Road, Erdington, Birmingham.	50 males and 50 females over the age of 16 years and 31 males and 30 females under the age of 16 years. Epileptic patients received.



96.	...	...	Warwick Infirmary, 91, Union Road, Warwick ...	4 males and 24 females over the age of 16 years (in-County cases only).
97.	Westmorland	...	Milnthorpe P.A.I. (Ackenthwaite End), Milnthorpe	72 males and 32 females over the age of 16 years and 18 males and 14 females under the age of 16 years. Epileptic patients received.
98.	Wiltshire	...	Devizes P.A.I., 7, Commercial Road, Devizes ...	16 employable younger females over the age of 16 years and 21 males over the age of 16 years and of medium to low grade and of clean habits but excluding cot and chair cases (in-County cases only).
99.	...	...	Trowbridge and Melksham P.A.I. (Semington House), Semington, Trowbridge.	22 male and 36 female older active lower grade adults.
100.	Worcestershire	...	Evesham P.A.I., 5, Avonside, Hampton, Evesham	4 females over the age of 16 years (in-County cases only)
101.	(Worcester C.B.)	...	Worcester Municipal Homes, Tallow Hill, Worcester.	30 males and 20 females over the age of 16 years.
102.	Yorkshire: East Riding		Driffeld P.A.I., 19, Bridlington Road, Driffeld ...	2 males and 12 females over the age of 16 years.
103.	(Kingston-upon-Hull C.B.)		Anlaby Road Institution, 188, Anlaby Road, Kingston-upon-Hull.	24 males over the age of 16 years.
104.	(York C.B.)	...	York P.A.I. (City and District Infirmary) 75, Huntington Road, York.	10 males and 10 females over the age of 16 years (medium to active low grade cases) and 10 low-grade males under the age of 16 years (excluding cot and chair cases). Epileptic patients received. (In-County cases only.)
105.	Yorkshire: North Riding (Middlesbrough C.B.)		Middlesbrough P.A.I., 101, St. Barnabas Road, Linthorpe, Middlesbrough.	7 females over the age of 16 years.
106.	...	...	Scarborough P.A.I., 18, Dean Road, Scarborough	38 males over the age of 16 years.
107.	Yorkshire: West Riding (Barnsley C.B.)	...	Barnsley Municipal General Hospital, 80, Gawber Road, Barnsley.	10 males and 10 females over the age of 16 years (in-County cases only).
108.	(Doncaster C.B.)	...	Doncaster P.A.I. (Springwell House), Balby, Doncaster.	20 males and 20 females over the age of 16 years.
109.	(Halifax C.B.)	...	Halifax P.A.I., 166, Gibbet Street, Halifax ...	6 males and 6 females over the age of 16 years.

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3. Except where otherwise stated patients are to be of active medium to low-grade type.



INSTITUTIONS APPROVED UNDER SECTION 37—continued.

Owning Local Authority (C.B. = County Borough.)	Name and Address of the Institution. (see footnotes 1 and 2.)	Number and class of Defectives. (see footnote 3.)
110. Yorkshire (West Riding) —contd.	Dean House, Huddersfield P.A.I., Thongsbridge, Huddersfield.	10 males and 25 females over the age of 16 years. Epileptic patients received.
111. ... ..	Settle (Giggleswick) P.A.I., 1, Reins Road, Giggles- wick, Settle.	105, viz.— 100 males over the age of 16 years, i.e. 90 active medium to low grade cases and 10 cot and chair cases and 5 female mental defectives over the age of 16 years of active medium to low grade.
112. (Sheffield C.B.) ...	Sheffield P.A.I. (Fir Vale House), Pitsmoor, Sheffield, 5.	40 males and 75 females. All classes over the age of 16 years. • (Cases from the City of Sheffield only.)
113. ... ..	Tadcaster P.A.I. (The Beeches), Tadcaster ...	24 females over the age of 16 years.
114. ... ..	County Institution, Grenoside, Sheffield ...	36 feeble-minded females over the age of 16 years.

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3. Except where otherwise stated patients are to be of active medium to low-grade type.



CERTIFIED HOUSES.

COUNTY.	Name and Address of House.	Names of Managers or Owners.	Number and class of Defectives.
1. Middlesex ...	Larkfield Lodge, Hampton Hill.	Mrs. A. M. Campbell	15 of both sexes, who shall be ambulant trainable cases under the age of 16 years, suitable to live in association with each other. 150 males and females, not more than 100 of either sex at any one time. 5 females. Imbeciles and feeble-minded.
2. ...	Normansfield, Teddington ...	R. L. Langdon-Down, M.A., M.B., and Mrs. P. Langdon-Down.	
3. ...	St. Margaret's, 9, Priory Road, Bedford Park, London, W.4.	Miss R. H. D. Whiting	
4. Sussex ...	Villa Maria, 1, Manor Road, Kemp Town, Brighton.	Proprietors of St. George's Retreat, Burgess Hill. Superintendent: Sister Mary Scholastica.	12 quiet adult female patients of imbecile grade.



## APPROVED HOMES.

COUNTY.	Name and Address of Home.	Name of Managers or Owners.	Number and class of Defectives.
1. Berkshire ...	St. Agnes, Grove Hill, Caversham, Reading.	Miss S. Dugdale ...	8, i.e., 3 males and 5 females, under the age of 16 years who shall be suitable in all respects to live in association with each other.
2. ...	Southmoor House, Kingston Bagpuize.	Mrs. E. de Verrine Lawson ...	15 high-grade feeble-minded males over the age of 16 years who are in all respects suitable to live in association with each other.
3. Buckinghamshire	Lynwood, Woburn Sands, near Bletchley.	Mr. and Mrs. C. D. F. G. Loveless ...	8 feeble-minded or high-grade imbecile adult males.
4. Cheshire ...	Westfield, London Road, Poynton.	Miss E. C. and Miss M. F. Evatt ...	12, i.e., not more than 6 of each sex who shall be between the ages of 5 and 16 years but not cot and chair cases, and suitable in all respects to live in a house where the sexes are associated.
5. Cornwall ...	The Elizabeth Barclay Home of Industry, Pound Lane, Bodmin.	The Committee ... Sec.:—Miss J. K. Cruddas, St. Anne's, Bodmin. Supt.:—Miss Stephens.	26 feeble-minded or high-grade imbecile adult females.
6. Devonshire	Raleigh House, Ottery St. Mary.	Miss L. Cottrell ...	15 patients, of whom not more than 11 shall be females under the age of 16 years and of whom not more than 4 shall be males of tender years fit to live in association with the girls.
7. Dorsetshire	Inglenook, Glenwood Road, West Moors, Wimborne.	Miss E. Coffin ...	6 feeble-minded females over the age of 16 years.
8. Essex ...	Gay Bowers, West Hanningfield, Chelmsford.	Mr. P. and Mrs. G. Chennells ...	7 imbecile and feeble-minded males over the age of 16 years.
9. Gloucestershire ...	Southend House School, Hatherley Brake, Cheltenham.	Miss A. King-Turner ...	25 patients of either sex, provided each patient is in all respects suitable to be in a house where the sexes are associated.



10. Hertfordshire	...	Arniston School (Boxmoor House), Box Lane, Hemel Hempstead.	Miss J. M. Isbister ...	...	22 active trainable cases of either sex who shall be in all respects suitable to live in association.
11. ...	...	Jersey Farm, Sandridge, nr. St. Albans.	H. Corner, M.D., and Miss H. M. Corner	...	16 high-grade patients over the age of 16 years of whom 14 shall be males to be accommodated at Jersey Farm and of whom 2 being either male or female able-bodied patients, shall be accommodated at Jersey Farm Cottages.
12. Kent	...	Alexander House, Hildenborough.	National Association for the Feeble-minded 72, Denison House, 296, Vauxhall Bridge Road, Westminster, S.W.1. Sec.:—Mrs. C. F. Topham, Denison House. Supt.:—Miss Doggrell.	...	29 feeble-minded females of the age of 16 years and upwards.
13. ...	...	Grove House School, Pluckley.	Mr. and Mrs. H. T. Green	...	26 males between the ages of 7 and 16 years, who shall be of approximately the same mental grade and suitable to live in association with each other. No patient shall be admitted after attaining the age of 14 years or retained after attaining the age of 16 years except with the previous written consent of the Board.
14. ...	...	Larkfield Hall, Larkfield, near Maidstone.	Miss B. Sargeant	...	32, i.e., not more than 18 shall be boys and not more than 18 shall be girls who shall be of approximately the same mental condition and suitable in all respects to live in a house where the sexes are associated.
15. ...	...	Upper Hollenden Farm (Princess Christian's Farm Colony), Hildenborough.	National Association for the Feeble-minded, 72, Denison House, 296, Vauxhall Bridge Road, Westminster, S.W.1. Sec.:—Mrs. C. F. Topham, Denison House. Supt.:—Miss E. Makins.	...	19 males over the age of 16 years, and of approximately the same mental grade.
16. Lancashire	...	Priory Rest Home, Sandown Park, Wavertree, Liverpool.	Mrs. L. Radcliffe	...	24, i.e., 4 cot and chair cases of either sex, 6 low-grade ambulant girls and 14 low-grade ambulant boys.



## APPROVED HOMES—continued.

COUNTY.	Name and Address of Home.	Name of Managers or Owners.	Number and class of Defectives.
17. Merionethshire ...	Bryn School, Hengwrt Uchaf, Dolgelly.	Miss C. E. Gibson ... ..	50 males under the age of 16 years suitable to live in association: no patient to be retained beyond that age without the previous written consent of the Board.
18. Middlesex ...	Conifers, Kingston Road, Hampton Wick.	R. L. Langdon-Down, M.A., M.B., and Mrs. P. Langdon-Down.	3 males (children) and 22 adolescent and adult females of higher grade.
19. ... ..	St. Christopher's, Amherst Road, West Ealing, W.13.	Miss M. C. B. Foster... ..	28 mentally defective trainable children of either sex provided each child is in all respects suitable to be in a house where the sexes are associated.
20. ... ..	Trematon, Broom Road, Teddington.	R. L. Langdon-Down, M.A., M.B., and Mrs. P. Langdon-Down.	26 adolescent and feeble-minded adult males.
21. Norfolk ...	Dyke House, Methwold, Thetford, Norfolk.	Mr. L. Porter-Morris and Mr. N. A. E. Bates Supt.:—L. Porter-Morris.	8 males over the age of 16 years.
22. ... ..	Ingleside, Trimmingham ...	Miss S. A. Huntly ... ..	10 females who shall be in all respects suitable to live in association with each other.
23. ... ..	The Tower House, Downham Market.	Miss E. M. Wall ... ..	15 imbecile children of either sex who shall be in all respects suitable to live in a house where the sexes are associated.
24. Nottinghamshire...	Upton Hall, Upton, near Newark.	Mrs. L. Steer ... ..	38 medium to high grade males, of whom 26 shall be under the age of 16 years and 12 shall be over the age of 16 years, the patients in each group to be suitable in all respects to live in association with each other.
25. Shropshire ...	West of England School of Handicrafts (excluding Annexe), Burlton.	Mr. T. J. Parry ... ..	50 high to medium grade males over the age of 16 years suitable to live in association with each other.



26.	Southampton	...	Donee, Grayshott, Hindhead	Miss G. Burke	...	...	13 patients of either sex suitable to live in association with each other, no male mental defective to be retained beyond the physical age of 11 years without the Board's previous consent.
27.	Surrey	...	Belmont Private Nursing School, Ravenscroft, Godstone Road, Warlingham.	Dr. J. P. Race and Dr. D. E. Hearn	...	...	37, 16 of whom shall be cot and chair cases and 21 shall be able-bodied low-grade cases—active low grade boys not to be retained beyond the physical age of 11 years.
28.	...	...	Denfield, South Terrace, Dorking.	Miss F. M. Bowles Price, M.D., D.P.H.	...	...	7 male and 6 female children who shall be in all respects suitable to live in a house where the sexes are associated.
29.	...	...	Fleet House, Axes Lane, Salfords, near Redhill.	Miss A. Willsher	...	...	9 male mental defectives over the age of 16 years.
30.	...	...	Lynton, Coombe Lane, Kingston Hill.	Miss M. I. Morrell	...	...	6 females between the ages of 14 and 18 years on admission and approximately of the same mental grade.
31.	Sussex	...	Cedars, North Parade, Horeham.	Miss V. McVicar Moore	...	...	8 males over the age of 14 years who shall be suitable in all respects to live in association with each other.
32.	...	...	Dunclutha, St. Helen's Park, Hastings.	Miss Mole, Miss A. E. H. Bruce and Mr. R. L. Mole.	...	...	40 trainable boys.
33.	...	...	Haute Terre, Lewes Road, Hayward's Heath.	Miss L. H. Smyth	...	...	10 feeble-minded patients of both sexes under the age of 16 years, each patient to be in all respects suitable to live in a house where the sexes are associated.
34.	...	...	Margaret Macdowall School, Inholmes Park Road, Burgess Hill.	Miss E. M. Shelton	...	...	18 imbecile and feeble-minded female patients of whom not more than 6 shall be under the age of 16 years and not more than 12 shall be over that age.
35.	...	...	Priory, Tortington, near Arundel.	Miss D. S. Ault	...	...	14 imbecile and feeble-minded children, provided that no child may be retained beyond the age of 16 years without the consent of the Board and provided also that the children are suitable to live in association with each other.



APPROVED HOMES—*continued*.

COUNTY.	Name and Address of Home.	Name of Managers or Owners.	Number and class of Defectives.
36. Sussex— <i>contd.</i> ...	Roffey House, Church Road, Burgess Hill.	Miss O. B. Mathews ...	11 juveniles of whom not more than six shall be boys and not more than 10 shall be girls. The boys shall not be retained beyond the age of 12 years or the girls beyond the age of 16 years except with the consent of the Board, and each patient shall be in all respects suitable to live in a house where the sexes are associated.
37. ... ..	St. Paul's House, Upper Maze Hill, St. Leonards-on-Sea.	Miss A. Meiklejon ...	33 patients, of whom not more than 5 may be males under the age of 16 years and provided that they are suitable to reside in a house where the sexes are associated.
38. Warwickshire ...	The Vineyard, Myton Crescent, Warwick, and The Vineyard, Finstall, near Bromsgrove, Worcestershire, and The Vineyard, Northfield, Worcestershire.	Mrs. J. H. Bailey ...	39, i.e.— <i>The Vineyard</i> , Myton Crescent, Warwick. 22 boys between the ages of 6 and 16 years. <i>The Vineyard</i> , Finstall, near Bromsgrove, Worcestershire. 10 males of the age of 16 years and upwards. <i>The Vineyard</i> , Northfield, Worcestershire. 5 girls under the age of 16 years, on the understanding that no objection will be raised to individual girls remaining over that age if considered suitable.
39. Wiltshire ...	Northdown School, 14, Church Street, Warminster.	Miss E. J. Webb ...	11, i.e., 4 male and 6 female mentally defective children under the age of 14 years who shall be suitable to associate in the dayroom (no low grade cases to be received).



40. Worcestershire ...	Sunfield Children's Home, Clent Grove, Clent, near Stourbridge.	Mr. M. H. Wilson ...	... ... ... ... ...	45 patients. The classification to be as follows :— <i>Clent Grove.</i> 7 females under the age of 16 years. 10 males under the age of 14 years. 23 infants of either sex suitable to be grouped together. <i>St. Elizabeth's Cottage.</i> 5 males over the age of 14 years.
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